OIPE IAP68
DEC 05 2005
PATENT & TRADEMARK OFFICE

FIG. 10

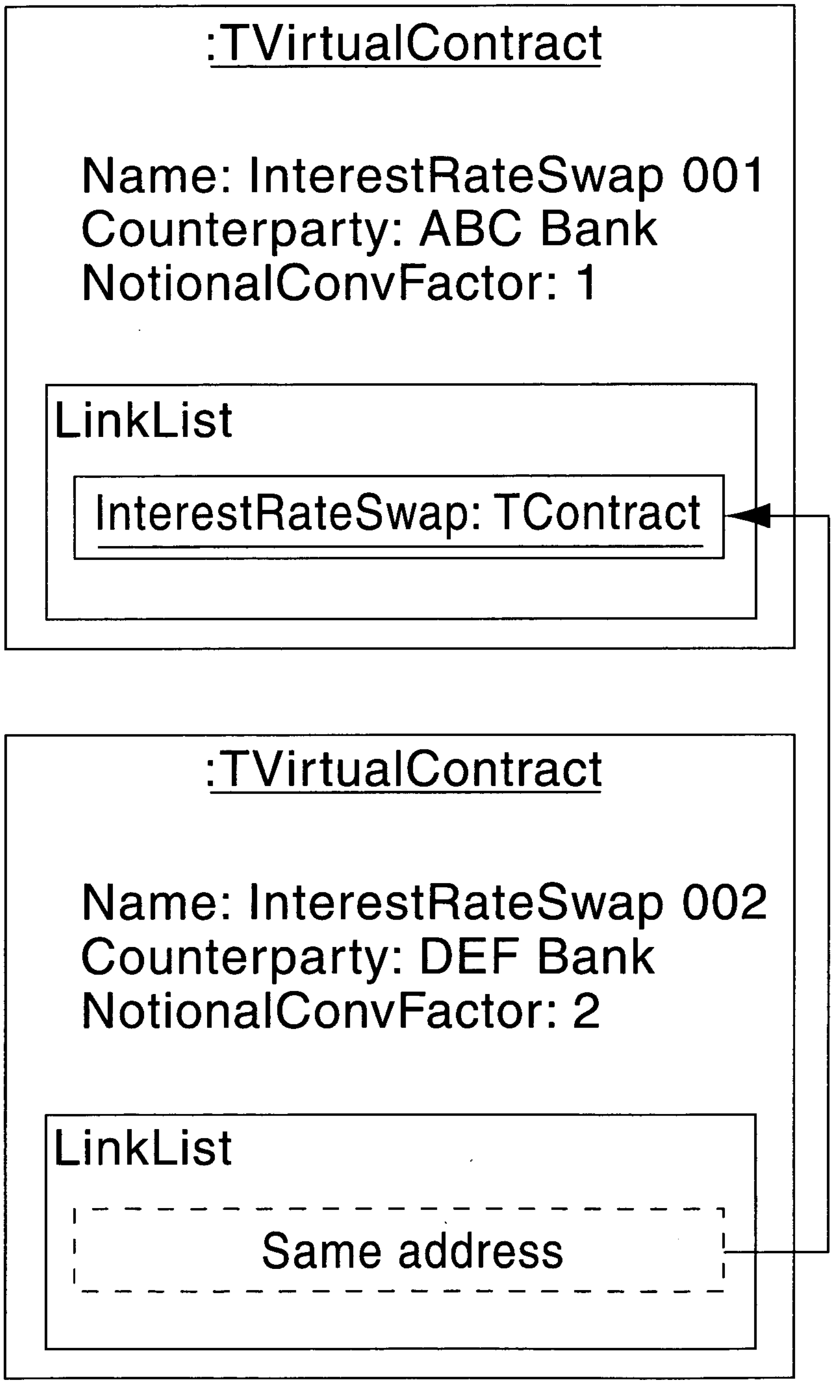
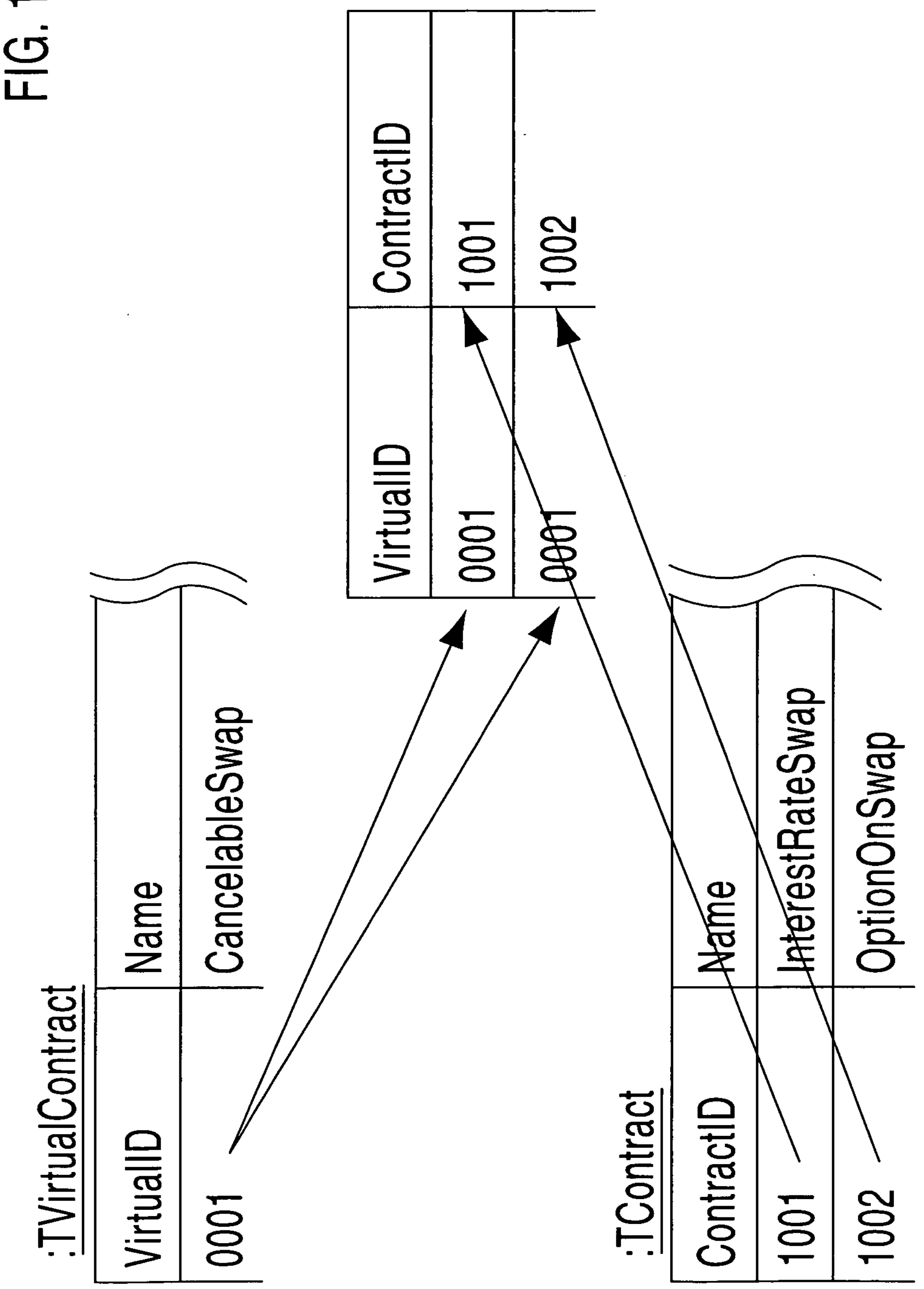

:TVirtualContract
Name: InterestRateSwap 001
Counterparty: ABC Bank
NotionalConvFactor: 1
LinkList
InterestRateSwap: TContract
:TVirtualContract
Name: InterestRateSwap 002
Counterparty: DEF Bank
NotionalConvFactor: 2
LinkList
Same address

FIG. 11



:TVirtualContract

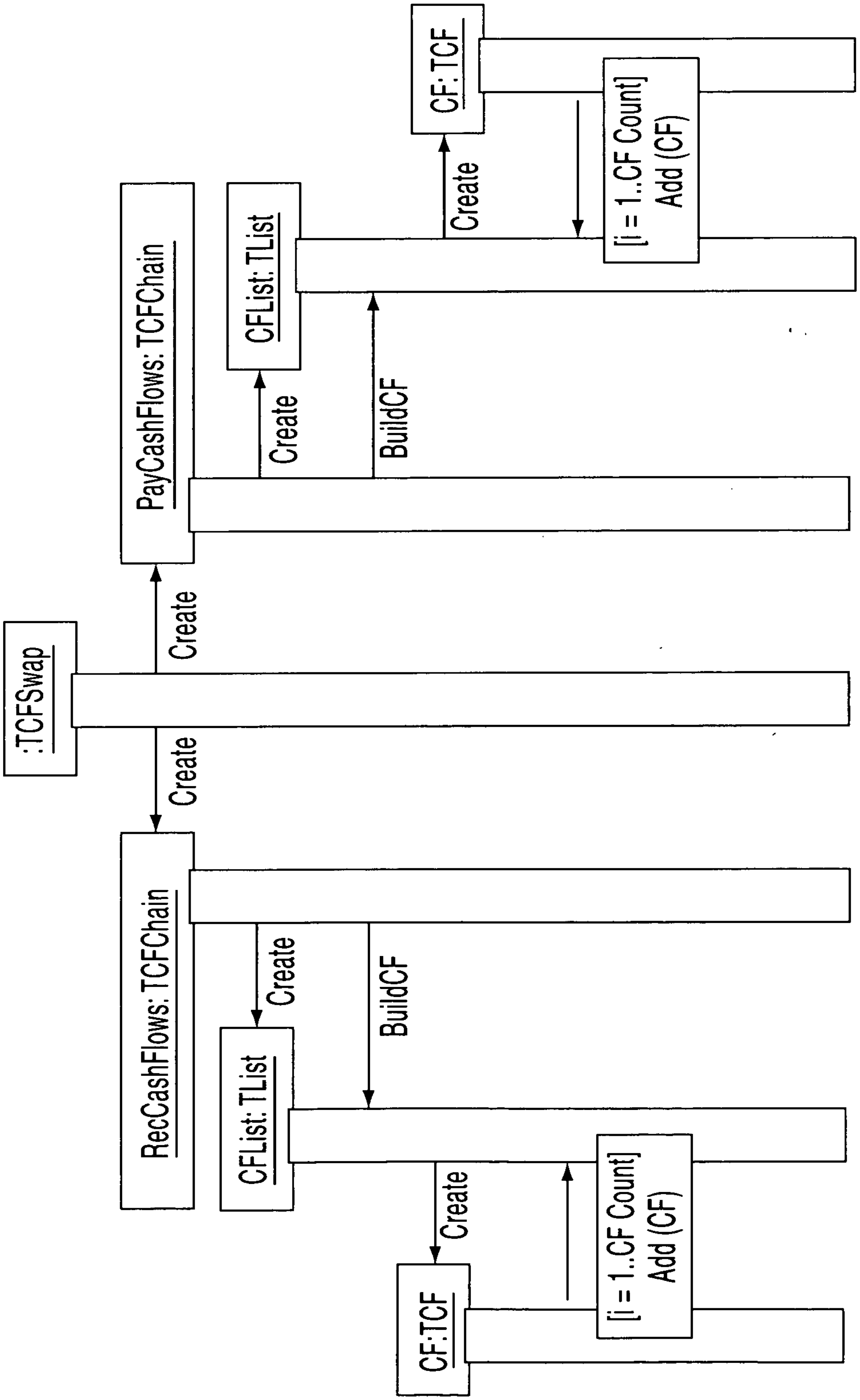
VirtualID	Name
0001	CancelableSwap

VirtualID	ContractID
0001	1001
0001	1002

:TContract

ContractID	Name
1001	InterestRateSwap
1002	OptionOnSwap

FIG. 18


:TCFSwap
Create
PayCashFlows: TCFChain
Create
CFList: TList
BuildCF
Create
CF: TCF
[i = 1..CF Count]
Add (CF)
Create
RecCashFlows: TCFChain
Create
CFList: TList
BuildCF
Create
CF:TCF
[i = 1..CF Count]
Add (CF)

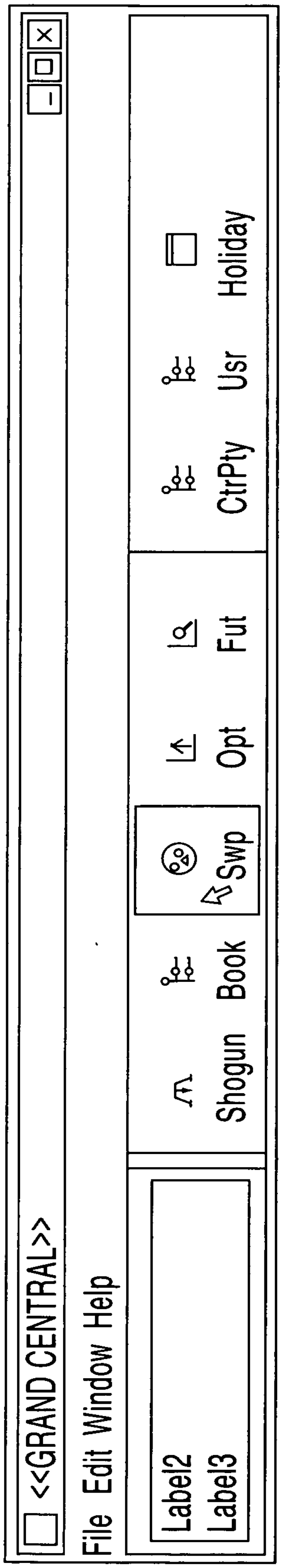
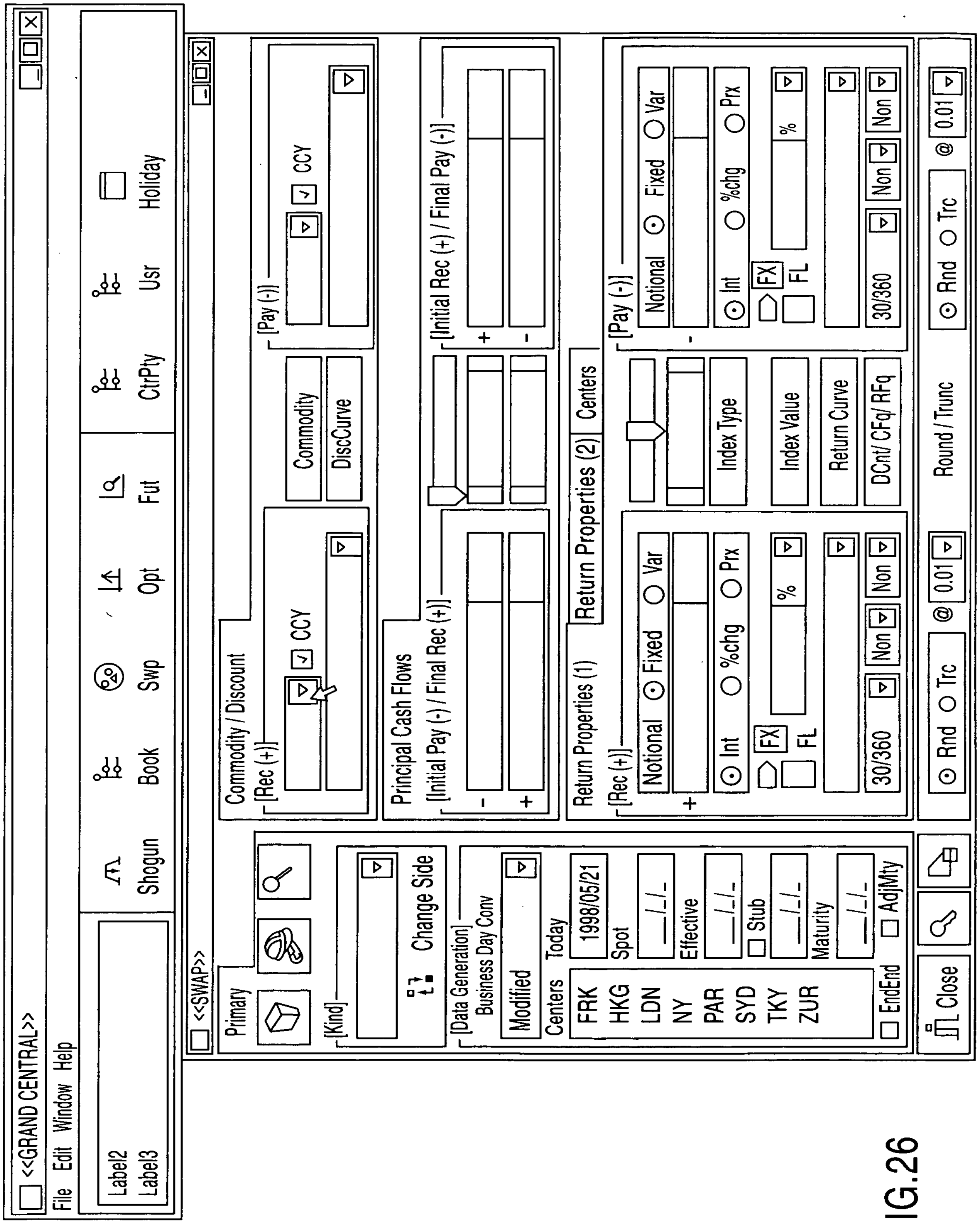

<<GRAND CENTRAL>>
File Edit Window Help
Label2
Label3
Shogun
Book
Swp
Opt
Fut
CtrPty
Usr
Holiday

FIG. 25



Today 1998/05/21

Business Day Conv Modified

<<GRAND CENTRAL>>
File Edit Window Help
Label2
Label3
Shogun
Book
Swp
Opt
Fut
CtrPty
Usr
Holiday
<<SWAP>>
Primary
[Kind]
Change Side
[Data Generation]
Centers
FRK
HKG
LDN
NY
PAR
SYD
TKY
ZUR
Spot
__/__/__
Effective
__/__/__
☐ Stub
__/__/__
Maturity
__/__/__
☐ EndEnd
☐ AdjMty
Close
Commodity / Discount
[Rec (+)]
☑ CCY
Commodity
DiscCurve
[Pay (-)]
☑ CCY
Principal Cash Flows
[Initial Pay (-) / Final Rec (+)]
-
+
[Initial Rec (+) / Final Pay (-)]
+
-
Return Properties (1)
Return Properties (2)
Centers
[Rec (+)]
Notional
● Fixed
○ Var
+
● Int
○ %chg
○ Prx
FX
FL
%
30/360
Non
Non
● Rnd
○ Trc
@ 0.01
Index Type
Index Value
Return Curve
DCnt/ CFq/ RFq
Round / Trunc
[Pay (-)]
Notional
● Fixed
○ Var
-
● Int
○ %chg
○ Prx
FX
FL
%
30/360
Non
Non
● Rnd
○ Trc
@ 0.01

FIG.26

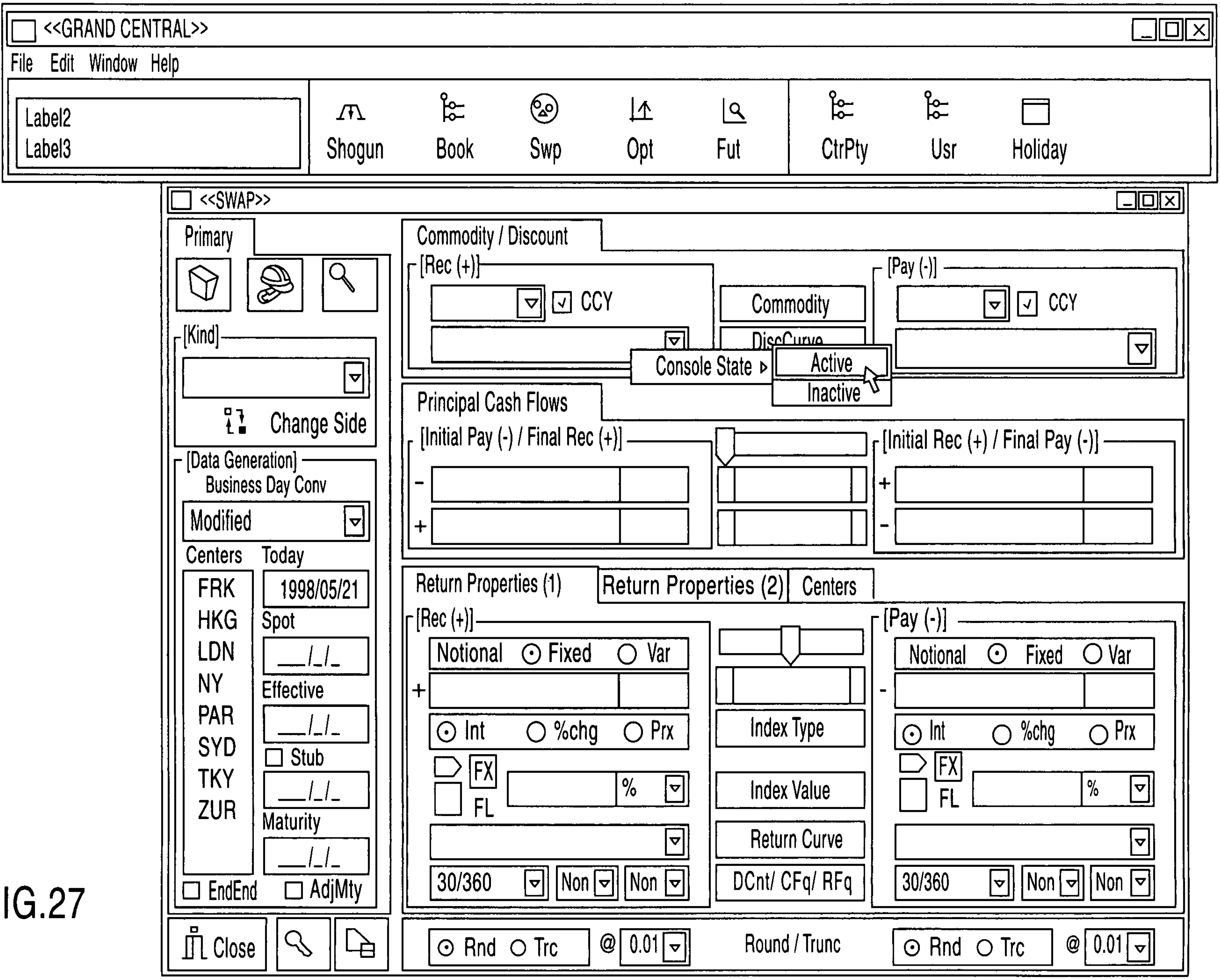
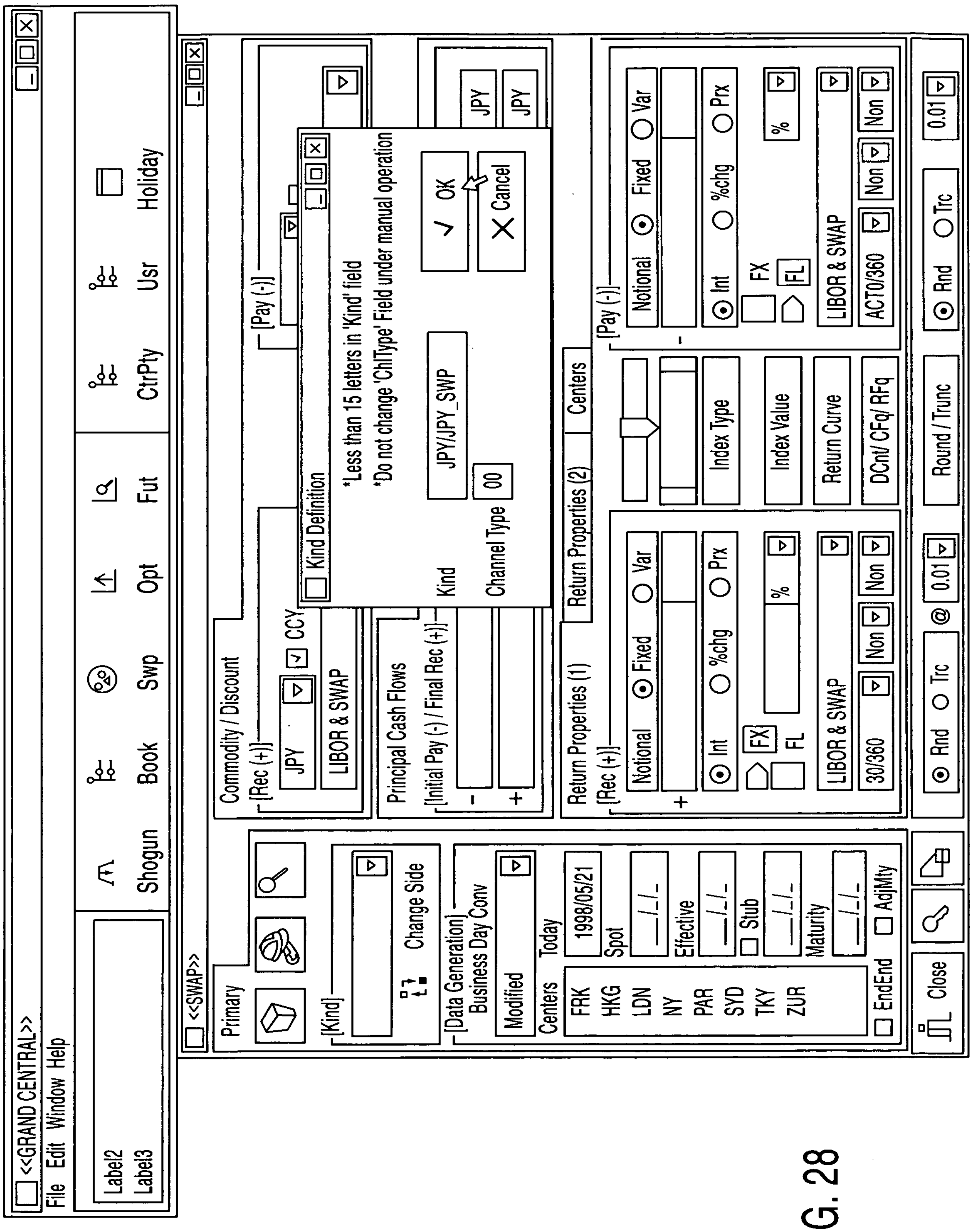

<<GRAND CENTRAL>>
File Edit Window Help
Label2
Label3
Shogun
Book
Swp
Opt
Fut
CtrPty
Usr
Holiday
<<SWAP>>
Primary
[Kind]
Change Side
[Data Generation]
Business Day Conv
Modified
Centers
FRK
HKG
LDN
NY
PAR
SYD
TKY
ZUR
Today
1998/05/21
Spot
__/_/_
Effective
__/_/_
☐ Stub
__/_/_
Maturity
__/_/_
☐ EndEnd
☐ AdjMty
Close
Commodity / Discount
[Rec (+)]
☑ CCY
Commodity
DiscCurve
Console State ▹
Active
Inactive
[Pay (-)]
☑ CCY
Principal Cash Flows
[Initial Pay (-) / Final Rec (+)]
-
+
[Initial Rec (+) / Final Pay (-)]
+
-
Return Properties (1)
Return Properties (2)
Centers
[Rec (+)]
Notional ● Fixed ○ Var
+
● Int ○ %chg ○ Prx
FX
FL
%
30/360
Non
Non
Index Type
Index Value
Return Curve
DCnt/ CFq/ RFq
[Pay (-)]
Notional ● Fixed ○ Var
-
● Int ○ %chg ○ Prx
FX
FL
%
30/360
Non
Non
● Rnd ○ Trc
@ 0.01
Round / Trunc
● Rnd ○ Trc
@ 0.01

FIG.27



Kind Definition

*Less than 15 letters in 'Kind' field

*Do not change 'ChlType' Field under manual operation

Kind: JPY/JPY_SWP

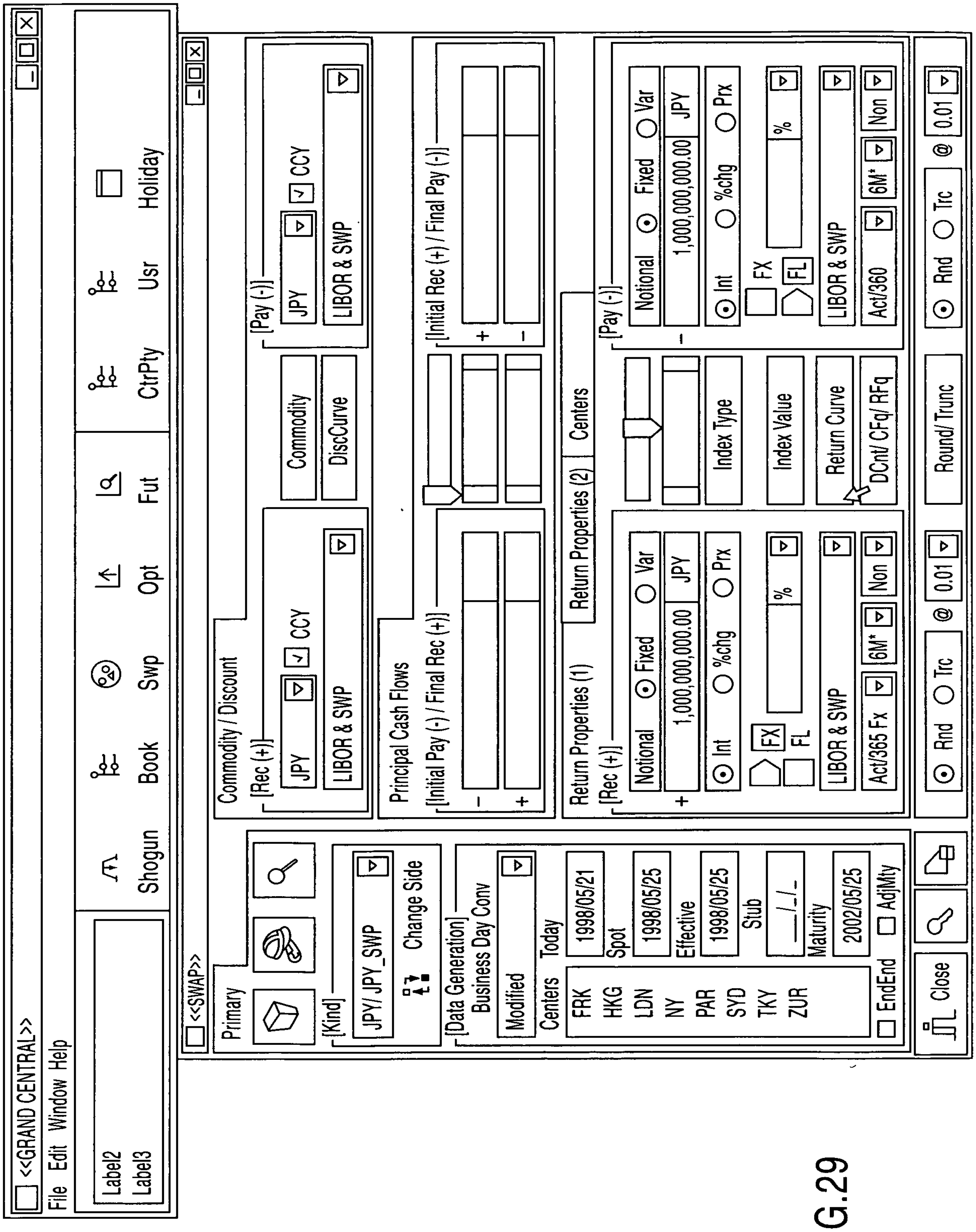
Channel Type: 00

Business Day Conv: Modified

Today: 1998/05/21

<<GRAND CENTRAL>>
File Edit Window Help
Label2
Label3
Shogun
Book
Swp
Opt
Fut
CtrPty
Usr
Holiday
<<SWAP>>
Primary
[Kind]
Change Side
[Data Generation]
Centers
FRK
HKG
LDN
NY
PAR
SYD
TKY
ZUR
Spot
Effective
Stub
Maturity
EndEnd
AdjMty
Close
Commodity / Discount
[Rec (+)]
JPY
CCY
LIBOR & SWAP
[Pay (-)]
Principal Cash Flows
[Initial Pay (-) / Final Rec (+)]
JPY
JPY
✓ OK
✕ Cancel
Return Properties (1)
Return Properties (2)
Centers
Notional
Fixed
Var
Int
%chg
Prx
FX
FL
%
LIBOR & SWAP
30/360
Non
Non
Rnd
Trc
@
0.01
Index Type
Index Value
Return Curve
DCnt/ CFq/ RFq
Round / Trunc
ACT0/360
Non
Non
Rnd
Trc
0.01

FIG. 28


<<GRAND CENTRAL>>
File Edit Window Help
Label2
Label3
Shogun
Book
Swp
Opt
Fut
CtrPty
Usr
Holiday
<<SWAP>>
Primary
Commodity
DiscCurve
Index Type
Index Value
Return Curve
DCnt/ CFq/ RFq
Round/ Trunc
Close

[Kind]
JPY/ JPY_SWP
Change Side

[Data Generation]
Business Day Conv: Modified
Centers: FRK HKG LDN NY PAR SYD TKY ZUR
Today: 1998/05/21
Spot: 1998/05/25
Effective: 1998/05/25
Stub: __/__/__
Maturity: 2002/05/25
☐ EndEnd ☐ AdjMty

Commodity / Discount
[Rec (+)]: JPY ☑ CCY; LIBOR & SWP
[Pay (-)]: JPY ☑ CCY; LIBOR & SWP

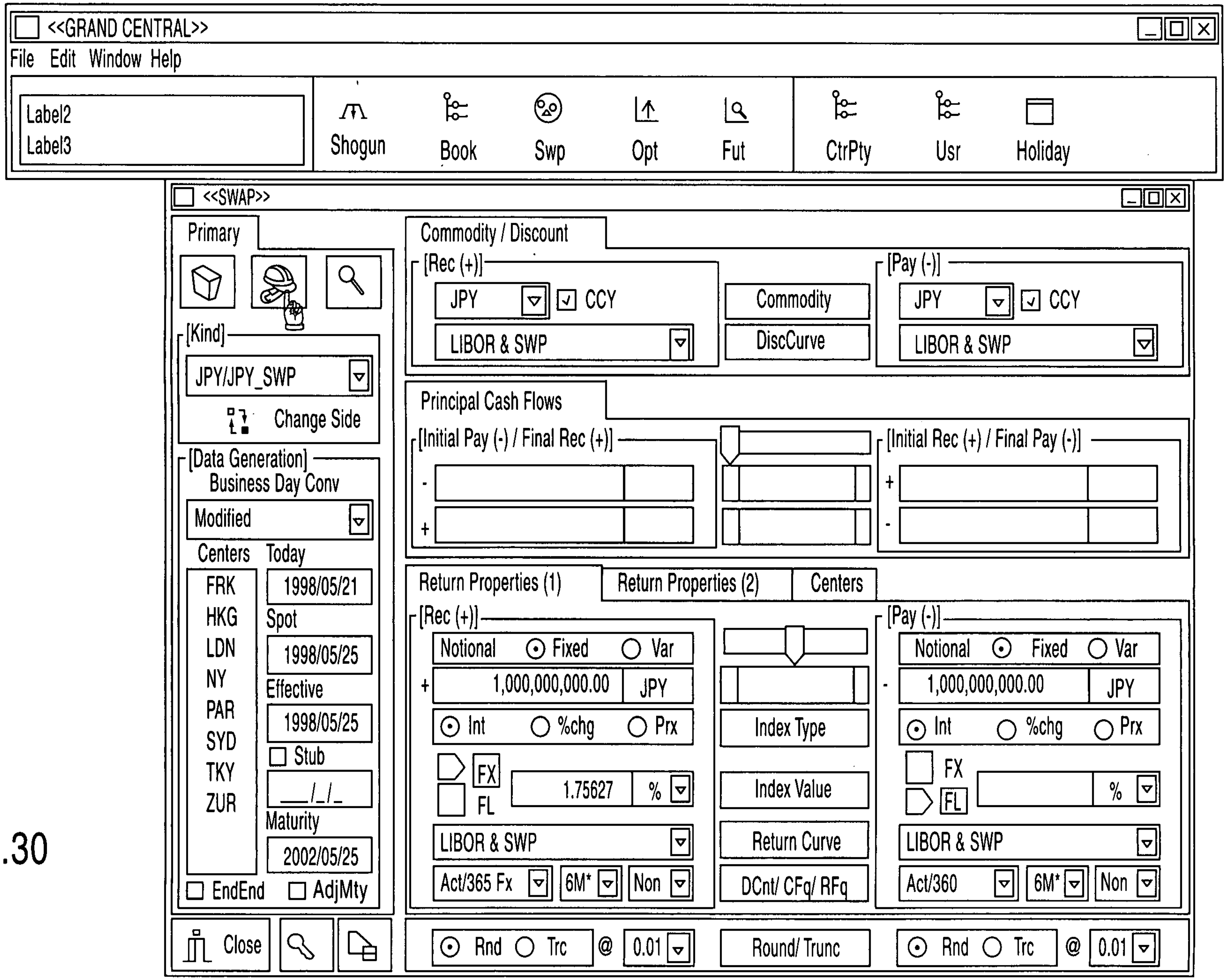
Principal Cash Flows
[Initial Pay (-) / Final Rec (+)]: - +
[Initial Rec (+) / Final Pay (-)]: + -

Return Properties (1) | Return Properties (2) | Centers

[Rec (+)]
Notional ● Fixed ○ Var
+ 1,000,000,000.00 JPY
● Int ○ %chg ○ Prx
FX FL
%
LIBOR & SWP
Act/365 Fx 6M* Non
● Rnd ○ Trc @ 0.01

[Pay (-)]
Notional ● Fixed ○ Var
- 1,000,000,000.00 JPY
● Int ○ %chg ○ Prx
FX FL
%
LIBOR & SWP
Act/360 6M* Non
● Rnd ○ Trc @ 0.01

FIG.29


<<GRAND CENTRAL>>
File Edit Window Help
Label2
Label3
Shogun
Book
Swp
Opt
Fut
CtrPty
Usr
Holiday
<<SWAP>>
Primary
[Kind]
Change Side
[Data Generation]
Commodity / Discount
Commodity
DiscCurve
Principal Cash Flows
[Initial Pay (-) / Final Rec (+)]
[Initial Rec (+) / Final Pay (-)]
Return Properties (1)
Return Properties (2)
Centers
Index Type
Index Value
Return Curve
DCnt/ CFq/ RFq
Round/ Trunc
Close

[Kind] JPY/JPY_SWP

Business Day Conv: Modified

Centers: FRK, HKG, LDN, NY, PAR, SYD, TKY, ZUR

Today: 1998/05/21

Spot: 1998/05/25

Effective: 1998/05/25

☐ Stub: __/_/_

Maturity: 2002/05/25

☐ EndEnd ☐ AdjMty

Commodity / Discount

[Rec (+)] JPY ☑ CCY — LIBOR & SWP

[Pay (-)] JPY ☑ CCY — LIBOR & SWP

Return Properties (1)

[Rec (+)]

Notional ● Fixed ○ Var

+ 1,000,000,000.00 JPY

● Int ○ %chg ○ Prx

FX 1.75627 %

LIBOR & SWP

Act/365 Fx — 6M* — Non

[Pay (-)]

Notional ● Fixed ○ Var

- 1,000,000,000.00 JPY

● Int ○ %chg ○ Prx

FL %

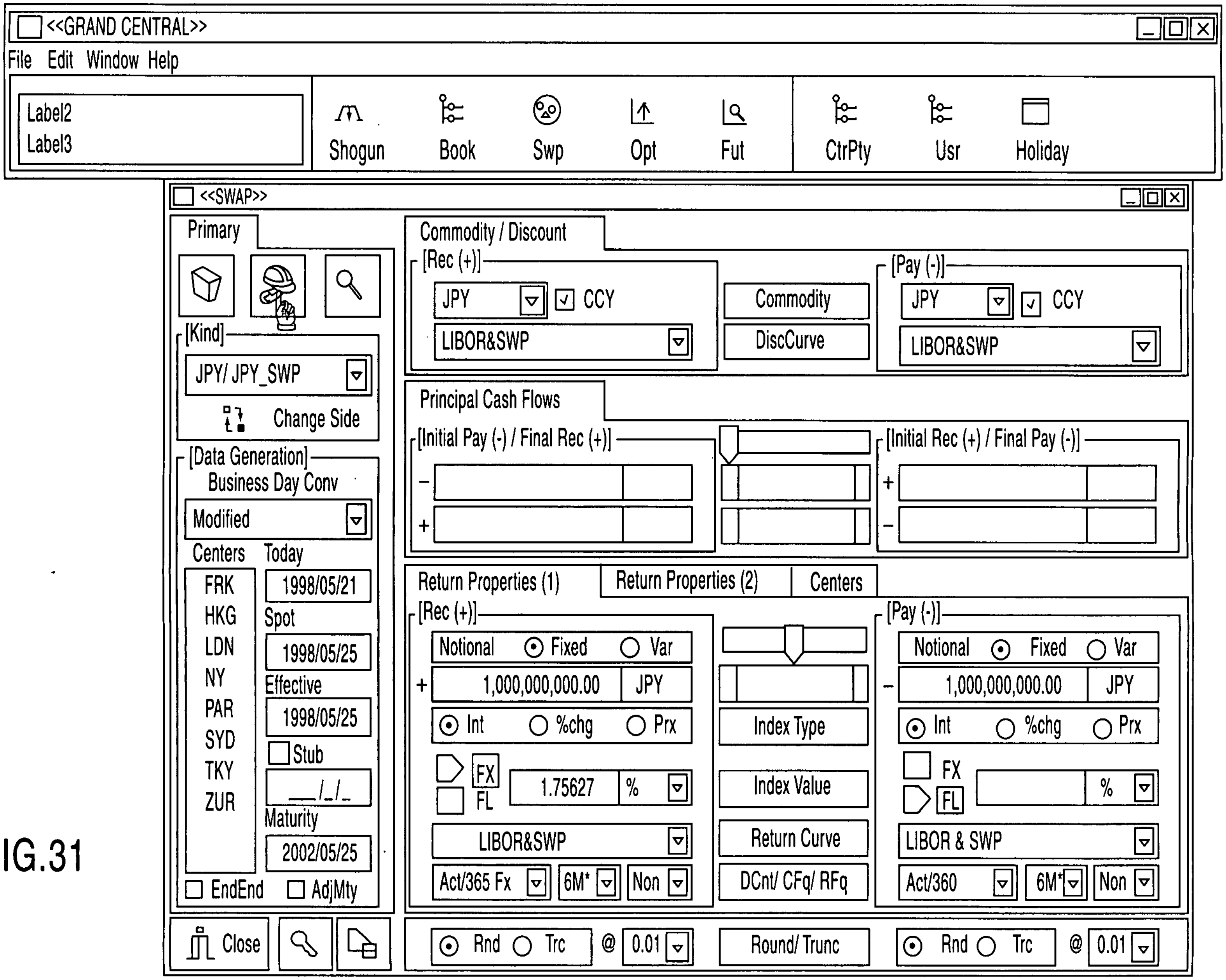
LIBOR & SWP

Act/360 — 6M* — Non

● Rnd ○ Trc @ 0.01

● Rnd ○ Trc @ 0.01

FIG.30


☐ <<GRAND CENTRAL>>
File Edit Window Help
Label2
Label3
Shogun
Book
Swp
Opt
Fut
CtrPty
Usr
Holiday
☐ <<SWAP>>
Primary
Commodity / Discount
Commodity
DiscCurve
Principal Cash Flows
Return Properties (1)
Return Properties (2)
Centers
Index Type
Index Value
Return Curve
DCnt/ CFq/ RFq
Round/ Trunc
Close

[Kind] JPY/ JPY_SWP
Change Side

[Data Generation]
Business Day Conv: Modified

Centers: FRK, HKG, LDN, NY, PAR, SYD, TKY, ZUR

Today: 1998/05/21
Spot: 1998/05/25
Effective: 1998/05/25
☐ Stub: __/_/_
Maturity: 2002/05/25
☐ EndEnd ☐ AdjMty

Commodity / Discount
[Rec (+)] JPY ☑ CCY LIBOR&SWP
[Pay (-)] JPY ☑ CCY LIBOR&SWP

Principal Cash Flows
[Initial Pay (-) / Final Rec (+)] – +
[Initial Rec (+) / Final Pay (-)] + –

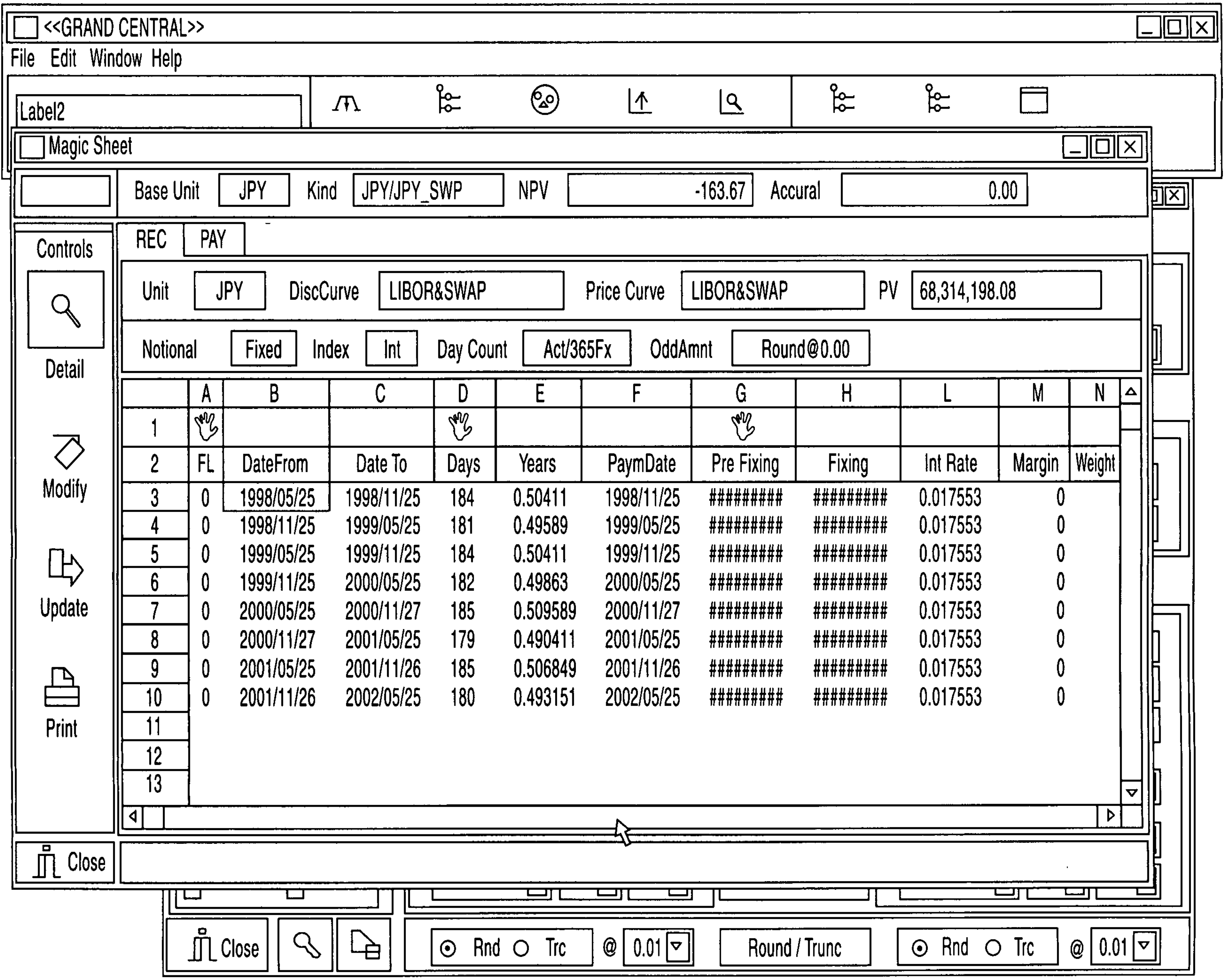
Return Properties (1)

[Rec (+)]
Notional ● Fixed ○ Var
+ 1,000,000,000.00 JPY
● Int ○ %chg ○ Prx
FX ☐ FL 1.75627 %
LIBOR&SWP
Act/365 Fx 6M* Non

[Pay (-)]
Notional ● Fixed ○ Var
– 1,000,000,000.00 JPY
● Int ○ %chg ○ Prx
☐ FX FL %
LIBOR & SWP
Act/360 6M* Non

● Rnd ○ Trc @ 0.01
● Rnd ○ Trc @ 0.01

FIG.31


<<GRAND CENTRAL>>
File Edit Window Help
Label2
Magic Sheet
Controls
Detail
Modify
Update
Print
Close
REC
PAY
Close
Round / Trunc

Base Unit: JPY Kind: JPY/JPY_SWP NPV: -163.67 Accural: 0.00

Unit: JPY DiscCurve: LIBOR&SWAP Price Curve: LIBOR&SWAP PV: 68,314,198.08

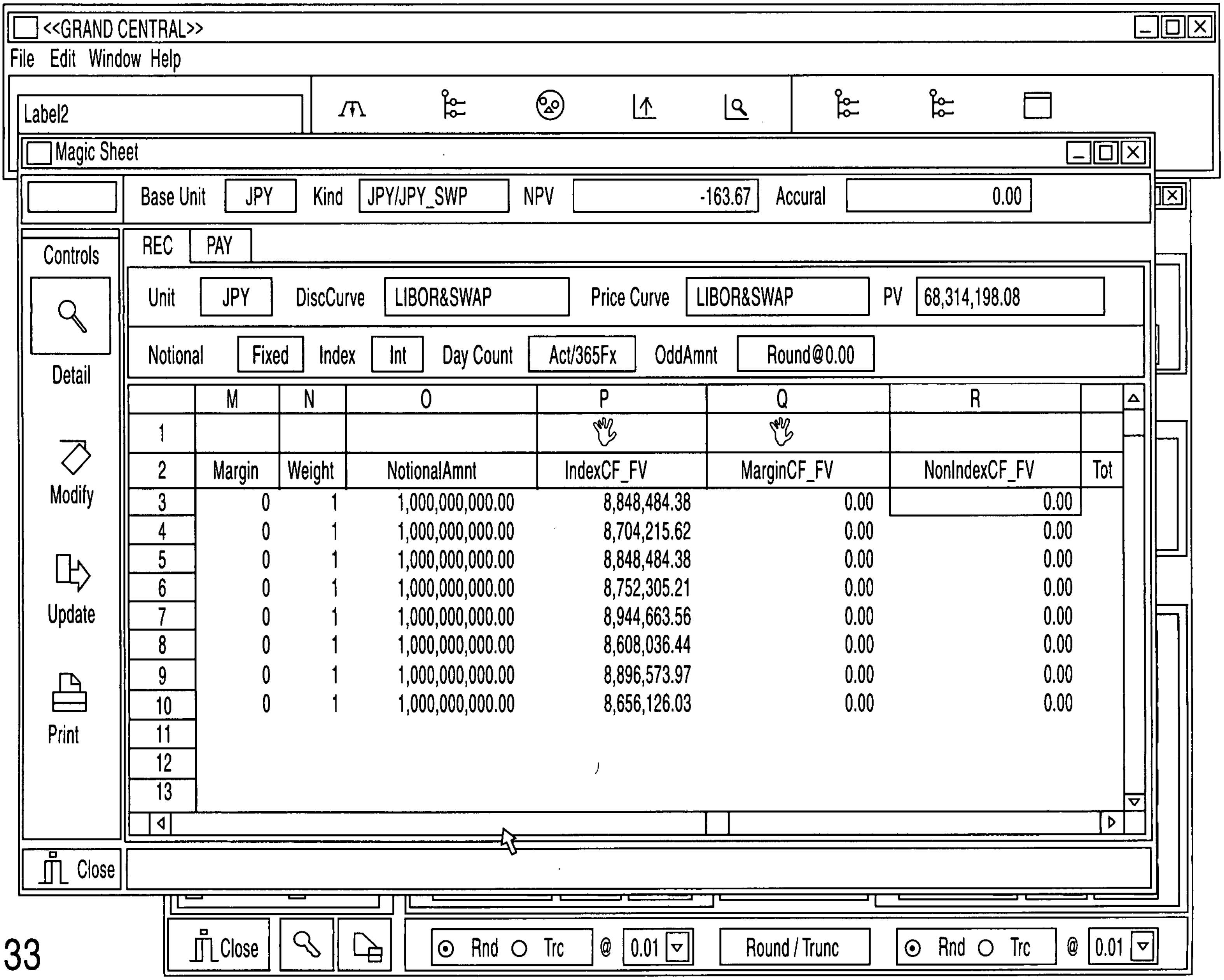
Notional: Fixed Index: Int Day Count: Act/365Fx OddAmnt: Round@0.00

	A	B	C	D	E	F	G	H	L	M	N
1											
2	FL	DateFrom	Date To	Days	Years	PaymDate	Pre Fixing	Fixing	Int Rate	Margin	Weight
3	0	1998/05/25	1998/11/25	184	0.50411	1998/11/25	#########	#########	0.017553	0	
4	0	1998/11/25	1999/05/25	181	0.49589	1999/05/25	#########	#########	0.017553	0	
5	0	1999/05/25	1999/11/25	184	0.50411	1999/11/25	#########	#########	0.017553	0	
6	0	1999/11/25	2000/05/25	182	0.49863	2000/05/25	#########	#########	0.017553	0	
7	0	2000/05/25	2000/11/27	185	0.509589	2000/11/27	#########	#########	0.017553	0	
8	0	2000/11/27	2001/05/25	179	0.490411	2001/05/25	#########	#########	0.017553	0	
9	0	2001/05/25	2001/11/26	185	0.506849	2001/11/26	#########	#########	0.017553	0	
10	0	2001/11/26	2002/05/25	180	0.493151	2002/05/25	#########	#########	0.017553	0	
11											
12											
13											

● Rnd ○ Trc @ 0.01

● Rnd ○ Trc @ 0.01

FIG.32


<<GRAND CENTRAL>>
File Edit Window Help
Label2
Magic Sheet
Controls
Detail
Modify
Update
Print
Close
REC
PAY
Close
Round / Trunc

Base Unit: JPY Kind: JPY/JPY_SWP NPV: -163.67 Accural: 0.00

Unit: JPY DiscCurve: LIBOR&SWAP Price Curve: LIBOR&SWAP PV: 68,314,198.08

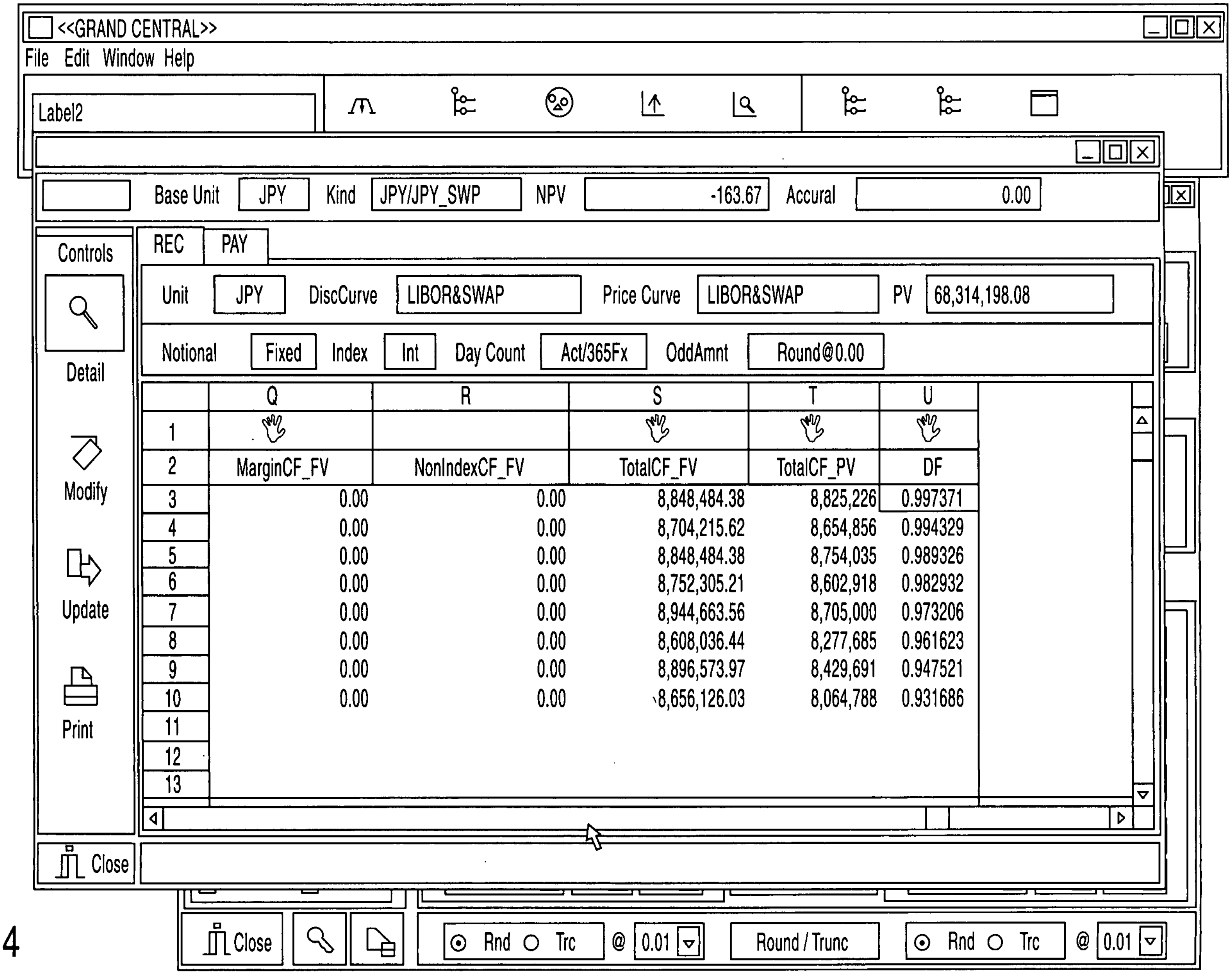
Notional: Fixed Index: Int Day Count: Act/365Fx OddAmnt: Round@0.00

	M	N	O	P	Q	R	
1				✋	✋		
2	Margin	Weight	NotionalAmnt	IndexCF_FV	MarginCF_FV	NonIndexCF_FV	Tot
3	0	1	1,000,000,000.00	8,848,484.38	0.00	0.00	
4	0	1	1,000,000,000.00	8,704,215.62	0.00	0.00	
5	0	1	1,000,000,000.00	8,848,484.38	0.00	0.00	
6	0	1	1,000,000,000.00	8,752,305.21	0.00	0.00	
7	0	1	1,000,000,000.00	8,944,663.56	0.00	0.00	
8	0	1	1,000,000,000.00	8,608,036.44	0.00	0.00	
9	0	1	1,000,000,000.00	8,896,573.97	0.00	0.00	
10	0	1	1,000,000,000.00	8,656,126.03	0.00	0.00	
11							
12							
13							

● Rnd ○ Trc @ 0.01

● Rnd ○ Trc @ 0.01

FIG.33



<<GRAND CENTRAL>>
File Edit Window Help
Label2
Controls
Detail
Modify
Update
Print
Close
REC
PAY
Close
Round / Trunc

Base Unit JPY Kind JPY/JPY_SWP NPV -163.67 Accural 0.00

Unit JPY DiscCurve LIBOR&SWAP Price Curve LIBOR&SWAP PV 68,314,198.08

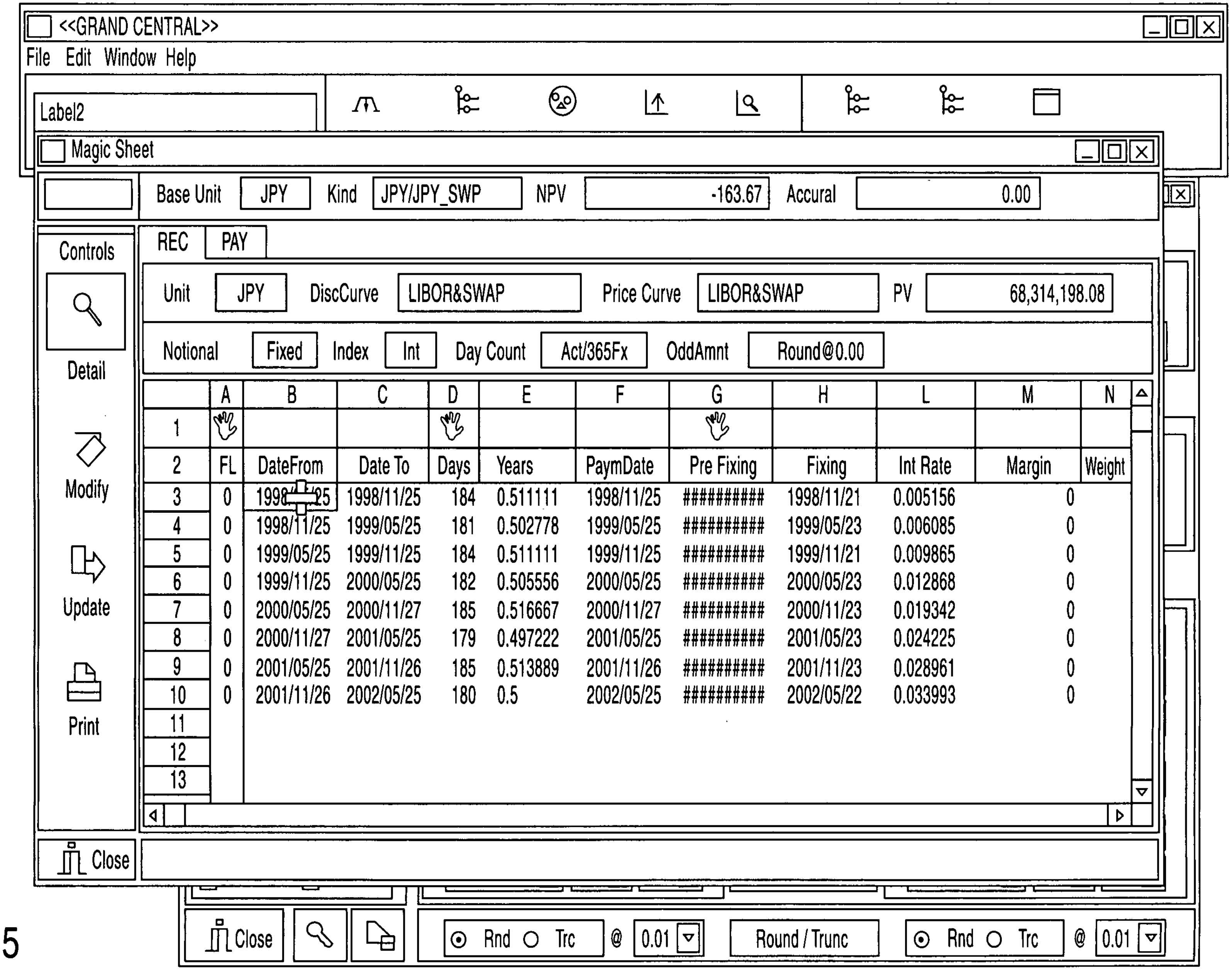
Notional Fixed Index Int Day Count Act/365Fx OddAmnt Round@0.00

	Q	R	S	T	U
1					
2	MarginCF_FV	NonIndexCF_FV	TotalCF_FV	TotalCF_PV	DF
3	0.00	0.00	8,848,484.38	8,825,226	0.997371
4	0.00	0.00	8,704,215.62	8,654,856	0.994329
5	0.00	0.00	8,848,484.38	8,754,035	0.989326
6	0.00	0.00	8,752,305.21	8,602,918	0.982932
7	0.00	0.00	8,944,663.56	8,705,000	0.973206
8	0.00	0.00	8,608,036.44	8,277,685	0.961623
9	0.00	0.00	8,896,573.97	8,429,691	0.947521
10	0.00	0.00	8,656,126.03	8,064,788	0.931686
11					
12					
13					

● Rnd ○ Trc @ 0.01

● Rnd ○ Trc @ 0.01

FIG.34


<<GRAND CENTRAL>>
File Edit Window Help
Label2
Magic Sheet
Controls
Detail
Modify
Update
Print
Close
REC
PAY
Close
Rnd
Trc
Round / Trunc
Rnd
Trc

Base Unit JPY Kind JPY/JPY_SWP NPV -163.67 Accural 0.00

Unit JPY DiscCurve LIBOR&SWAP Price Curve LIBOR&SWAP PV 68,314,198.08

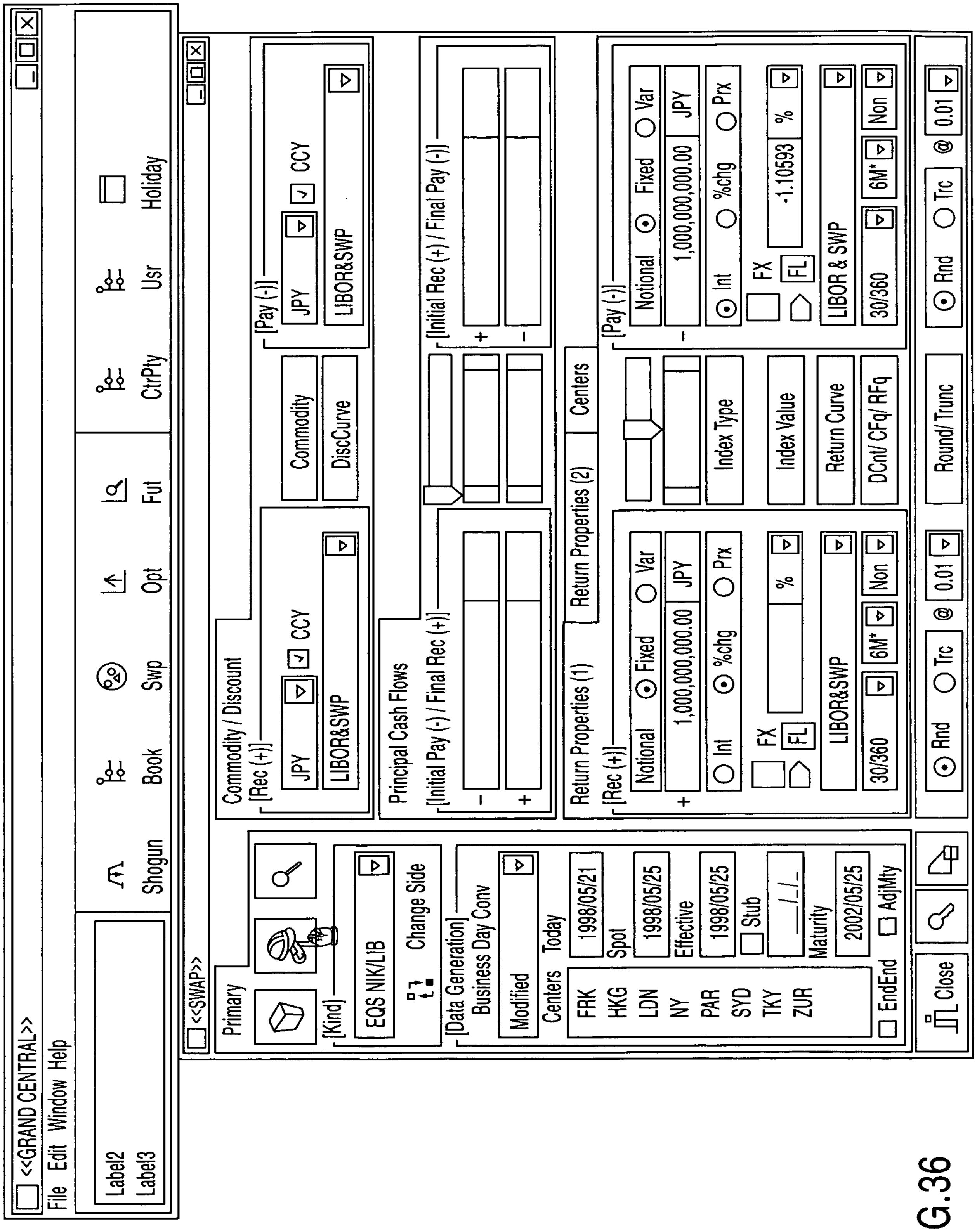
Notional Fixed Index Int Day Count Act/365Fx OddAmnt Round@0.00

○ Rnd ○ Trc @ 0.01

● Rnd ○ Trc @ 0.01

	A	B	C	D	E	F	G	H	L	M	N
1											
2	FL	DateFrom	Date To	Days	Years	PaymDate	Pre Fixing	Fixing	Int Rate	Margin	Weight
3	0	1998[illegible]25	1998/11/25	184	0.511111	1998/11/25	##########	1998/11/21	0.005156	0	
4	0	1998/11/25	1999/05/25	181	0.502778	1999/05/25	##########	1999/05/23	0.006085	0	
5	0	1999/05/25	1999/11/25	184	0.511111	1999/11/25	##########	1999/11/21	0.009865	0	
6	0	1999/11/25	2000/05/25	182	0.505556	2000/05/25	##########	2000/05/23	0.012868	0	
7	0	2000/05/25	2000/11/27	185	0.516667	2000/11/27	##########	2000/11/23	0.019342	0	
8	0	2000/11/27	2001/05/25	179	0.497222	2001/05/25	##########	2001/05/23	0.024225	0	
9	0	2001/05/25	2001/11/26	185	0.513889	2001/11/26	##########	2001/11/23	0.028961	0	
10	0	2001/11/26	2002/05/25	180	0.5	2002/05/25	##########	2002/05/22	0.033993	0	
11											
12											
13											

FIG.35


<<GRAND CENTRAL>>
File Edit Window Help
Label2
Label3
Shogun
Book
Swp
Opt
Fut
CtrPty
Usr
Holiday
<<SWAP>>
Primary
Change Side
Close
Commodity
DiscCurve
Return Properties (1)
Return Properties (2)
Centers
Index Type
Index Value
Return Curve
DCnt/ CFq/ RFq
Round/ Trunc

[Kind] EQS NIK/LIB

[Data Generation]
Business Day Conv: Modified
Centers: FRK HKG LDN NY PAR SYD TKY ZUR
Today: 1998/05/21
Spot: 1998/05/25
Effective: 1998/05/25
☐ Stub: __/__/__
Maturity: 2002/05/25
☐ EndEnd ☐ AdjMty

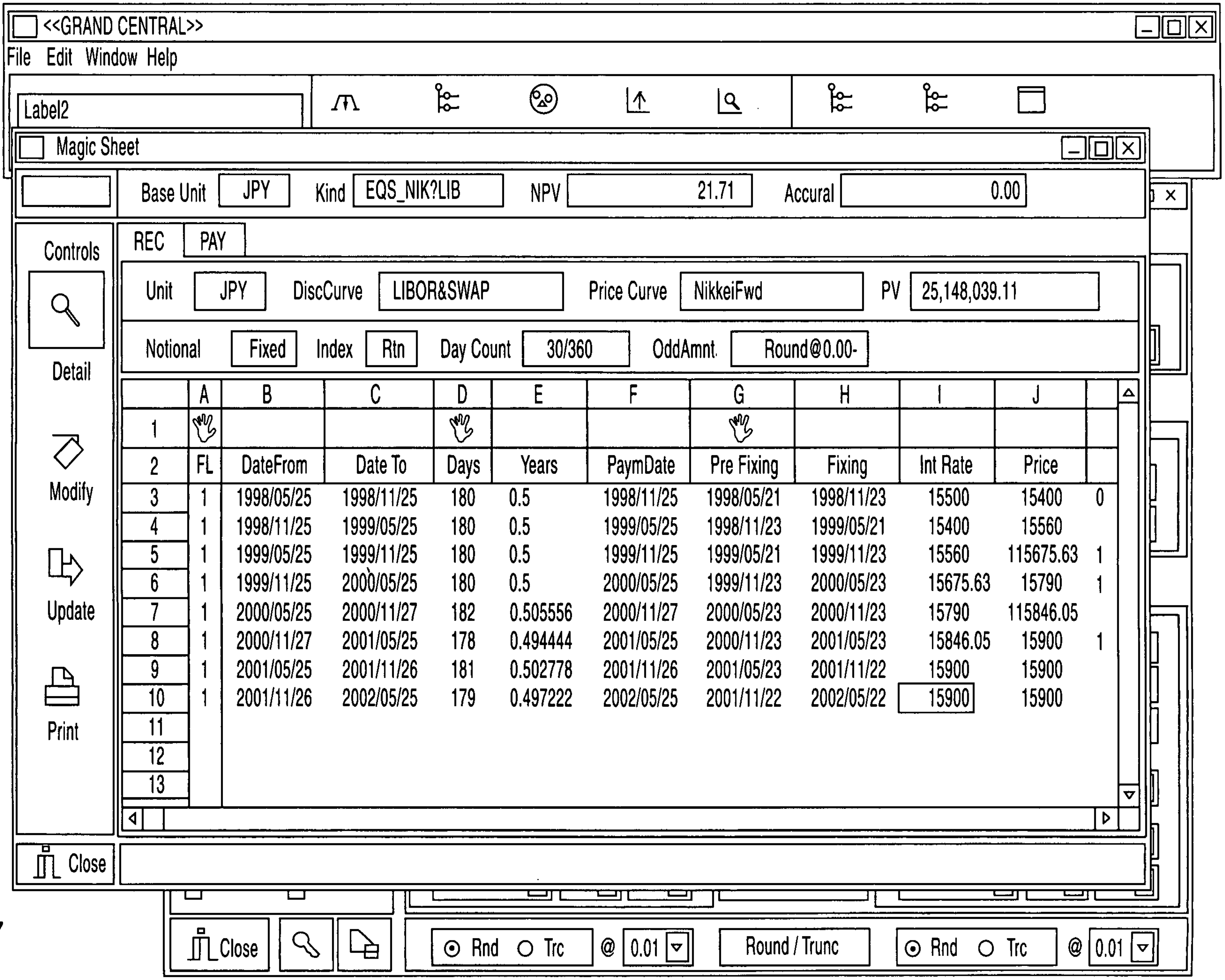
Commodity / Discount
[Rec (+)] JPY ☑ CCY LIBOR&SWP
[Pay (-)] JPY ☑ CCY LIBOR&SWP

Principal Cash Flows
[Initial Pay (-) / Final Rec (+)] - +
[Initial Rec (+) / Final Pay (-)] + -

[Rec (+)]
Notional ● Fixed ○ Var
+ 1,000,000,000.00 JPY
○ Int ● %chg ○ Prx
FX FL %
LIBOR&SWP
30/360 6M* Non
● Rnd ○ Trc @ 0.01

[Pay (-)]
Notional ● Fixed ○ Var
- 1,000,000,000.00 JPY
● Int ○ %chg ○ Prx
FX FL -1.10593 %
LIBOR & SWP
30/360 6M* Non
● Rnd ○ Trc @ 0.01

FIG.36


<<GRAND CENTRAL>>
File Edit Window Help
Label2
Magic Sheet
Controls
Detail
Modify
Update
Print
Close
REC
PAY
Close
Round / Trunc
Rnd
Trc

Base Unit: JPY Kind: EQS_NIK?LIB NPV: 21.71 Accural: 0.00

Unit: JPY DiscCurve: LIBOR&SWAP Price Curve: NikkeiFwd PV: 25,148,039.11

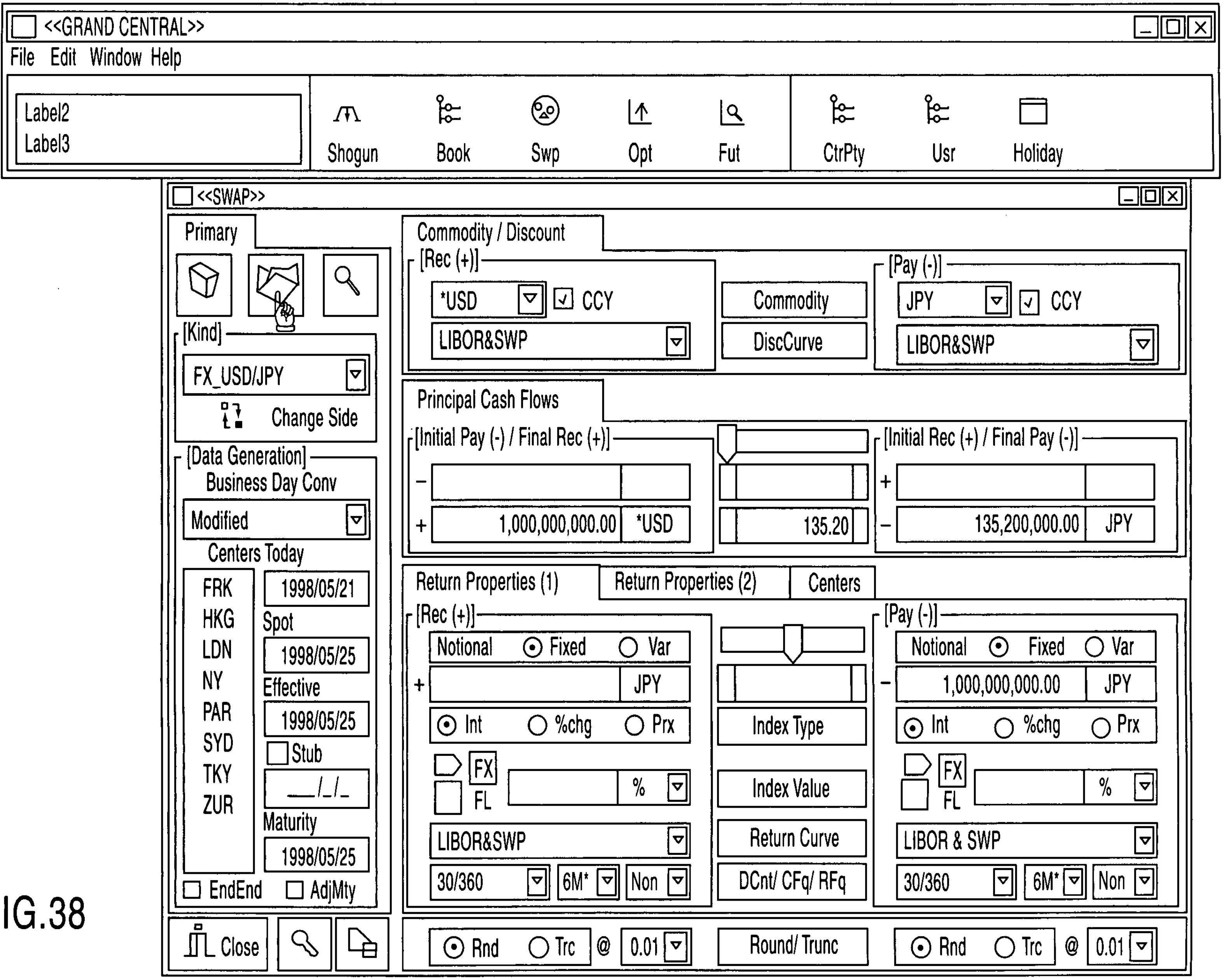
Notional: Fixed Index: Rtn Day Count: 30/360 OddAmnt: Round@0.00-

	A	B	C	D	E	F	G	H	I	J	
1											
2	FL	DateFrom	Date To	Days	Years	PaymDate	Pre Fixing	Fixing	Int Rate	Price	
3	1	1998/05/25	1998/11/25	180	0.5	1998/11/25	1998/05/21	1998/11/23	15500	15400	0
4	1	1998/11/25	1999/05/25	180	0.5	1999/05/25	1998/11/23	1999/05/21	15400	15560	
5	1	1999/05/25	1999/11/25	180	0.5	1999/11/25	1999/05/21	1999/11/23	15560	115675.63	1
6	1	1999/11/25	2000/05/25	180	0.5	2000/05/25	1999/11/23	2000/05/23	15675.63	15790	1
7	1	2000/05/25	2000/11/27	182	0.505556	2000/11/27	2000/05/23	2000/11/23	15790	115846.05	
8	1	2000/11/27	2001/05/25	178	0.494444	2001/05/25	2000/11/23	2001/05/23	15846.05	15900	1
9	1	2001/05/25	2001/11/26	181	0.502778	2001/11/26	2001/05/23	2001/11/22	15900	15900	
10	1	2001/11/26	2002/05/25	179	0.497222	2002/05/25	2001/11/22	2002/05/22	15900	15900	
11											
12											
13											

⊙ Rnd ○ Trc @ 0.01

⊙ Rnd ○ Trc @ 0.01

FIG.37


<<GRAND CENTRAL>>
File Edit Window Help
Label2
Label3
Shogun
Book
Swp
Opt
Fut
CtrPty
Usr
Holiday
<<SWAP>>
Primary
Change Side
Commodity / Discount
Commodity
DiscCurve
Principal Cash Flows
Return Properties (1)
Return Properties (2)
Centers
Index Type
Index Value
Return Curve
DCnt/ CFq/ RFq
Round/ Trunc
Close

[Kind] FX_USD/JPY

[Data Generation]
Business Day Conv: Modified
Centers Today: FRK HKG LDN NY PAR SYD TKY ZUR
1998/05/21
Spot: 1998/05/25
Effective: 1998/05/25
☐ Stub
__/_/_
Maturity: 1998/05/25
☐ EndEnd ☐ AdjMty

Commodity / Discount
[Rec (+)] *USD ☑ CCY LIBOR&SWP
[Pay (-)] JPY ☑ CCY LIBOR&SWP

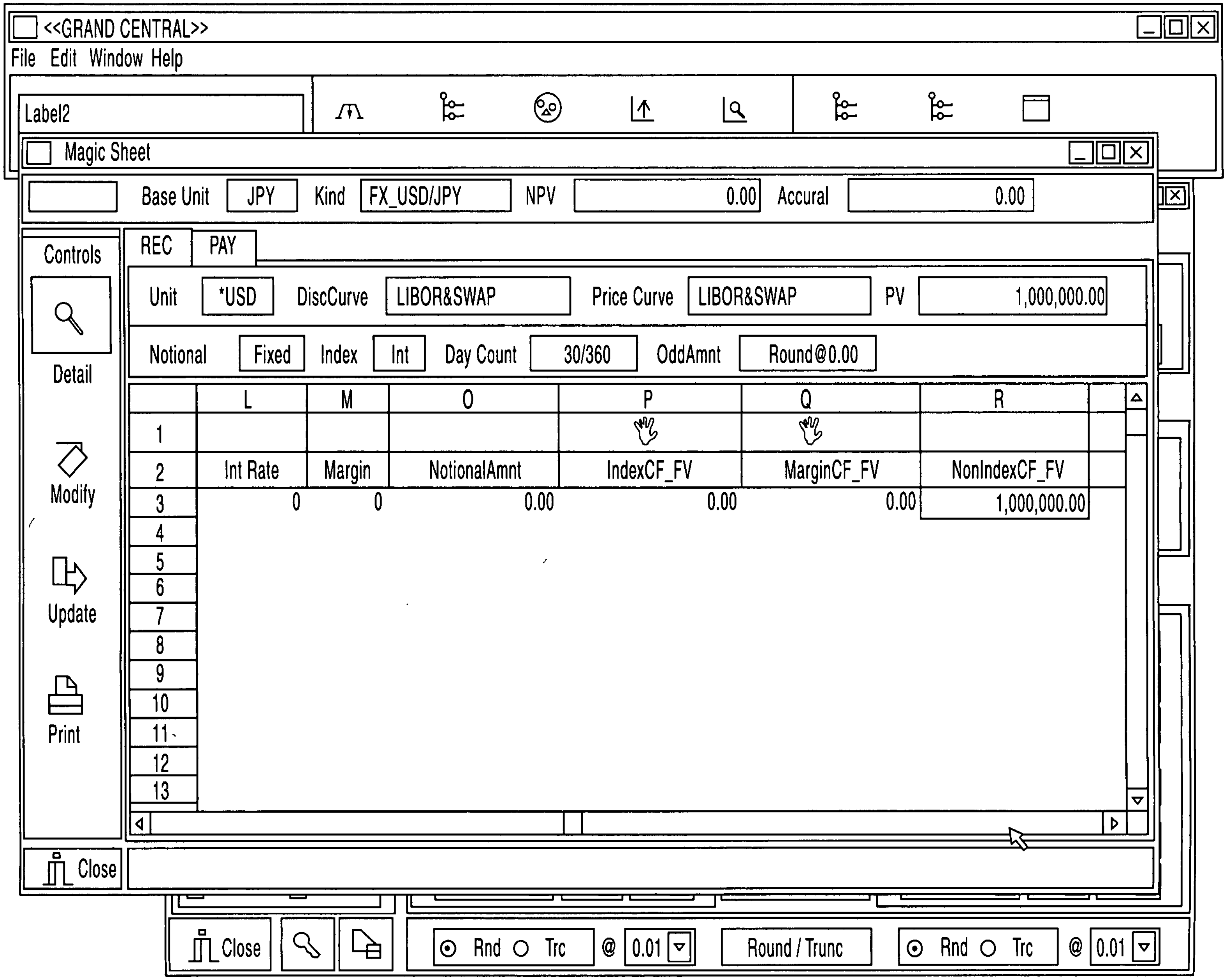
Principal Cash Flows
[Initial Pay (-) / Final Rec (+)]
-
+ 1,000,000,000.00 *USD
135.20
[Initial Rec (+) / Final Pay (-)]
+
- 135,200,000.00 JPY

Return Properties (1)
[Rec (+)]
Notional ● Fixed ○ Var
+ JPY
● Int ○ %chg ○ Prx
FX FL %
LIBOR&SWP
30/360 6M* Non

[Pay (-)]
Notional ● Fixed ○ Var
- 1,000,000,000.00 JPY
● Int ○ %chg ○ Prx
FX FL %
LIBOR & SWP
30/360 6M* Non

● Rnd ○ Trc @ 0.01
● Rnd ○ Trc @ 0.01

FIG.38


<<GRAND CENTRAL>>
File Edit Window Help
Label2
Magic Sheet
Controls
Detail
Modify
Update
Print
Close
REC
PAY
Close
Round / Trunc

Base Unit: JPY
Kind: FX_USD/JPY
NPV: 0.00
Accural: 0.00

Unit: *USD
DiscCurve: LIBOR&SWAP
Price Curve: LIBOR&SWAP
PV: 1,000,000.00

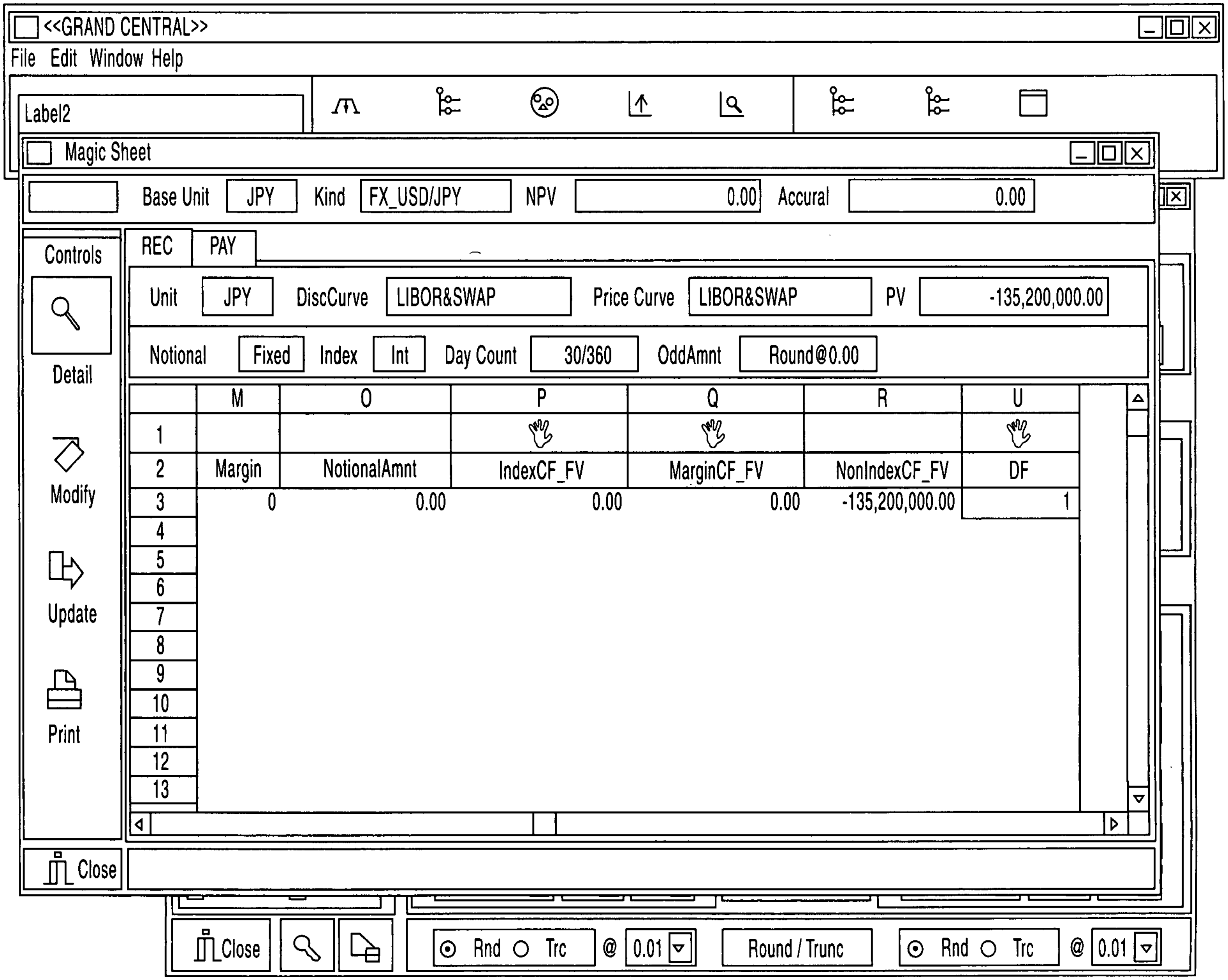
Notional: Fixed
Index: Int
Day Count: 30/360
OddAmnt: Round@0.00

	L	M	O	P	Q	R
1				✋	✋	
2	Int Rate	Margin	NotionalAmnt	IndexCF_FV	MarginCF_FV	NonIndexCF_FV
3	0	0	0.00	0.00	0.00	1,000,000.00
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						

● Rnd ○ Trc @ 0.01

● Rnd ○ Trc @ 0.01

FIG.39



<<GRAND CENTRAL>>
File Edit Window Help
Label2
Magic Sheet
REC
PAY
Controls
Detail
Modify
Update
Print
Close
Close
Round / Trunc
Rnd
Trc

Base Unit JPY
Kind FX_USD/JPY
NPV 0.00
Accural 0.00

Unit JPY
DiscCurve LIBOR&SWAP
Price Curve LIBOR&SWAP
PV -135,200,000.00

Notional Fixed
Index Int
Day Count 30/360
OddAmnt Round@0.00

	M	O	P	Q	R	U
1			✋	✋		✋
2	Margin	NotionalAmnt	IndexCF_FV	MarginCF_FV	NonIndexCF_FV	DF
3	0	0.00	0.00	0.00	-135,200,000.00	1
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						

● Rnd ○ Trc @ 0.01

● Rnd ○ Trc @ 0.01

FIG.40

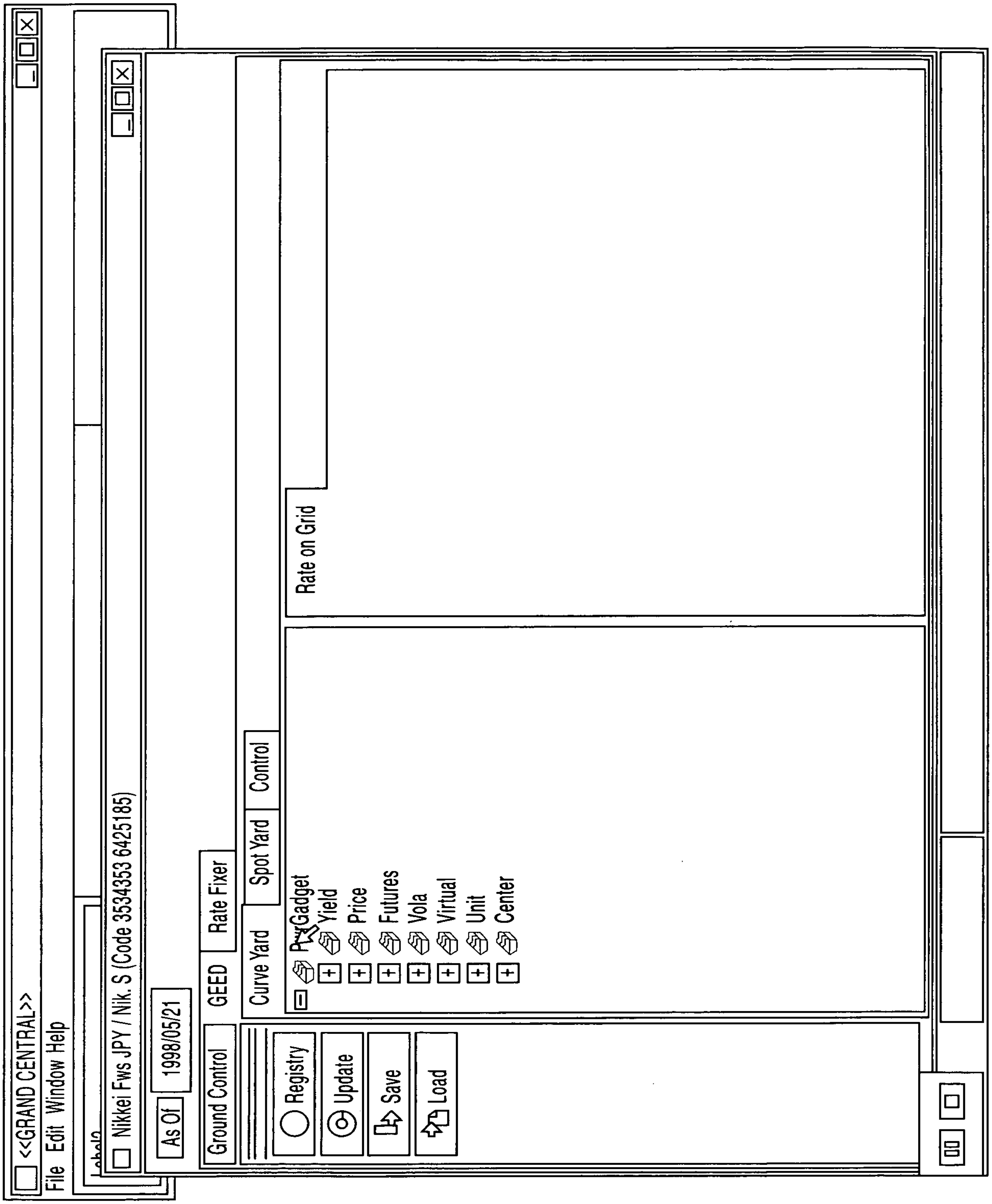

<<GRAND CENTRAL>>
File Edit Window Help
Label2
Nikkei Fws JPY / Nik. S (Code 3534353 6425185)
As Of
1998/05/21
Ground Control
GEED
Rate Fixer
Curve Yard
Spot Yard
Control
Registry
Update
Save
Load
PvGadget
Yield
Price
Futures
Vola
Virtual
Unit
Center
Rate on Grid

FIG.41

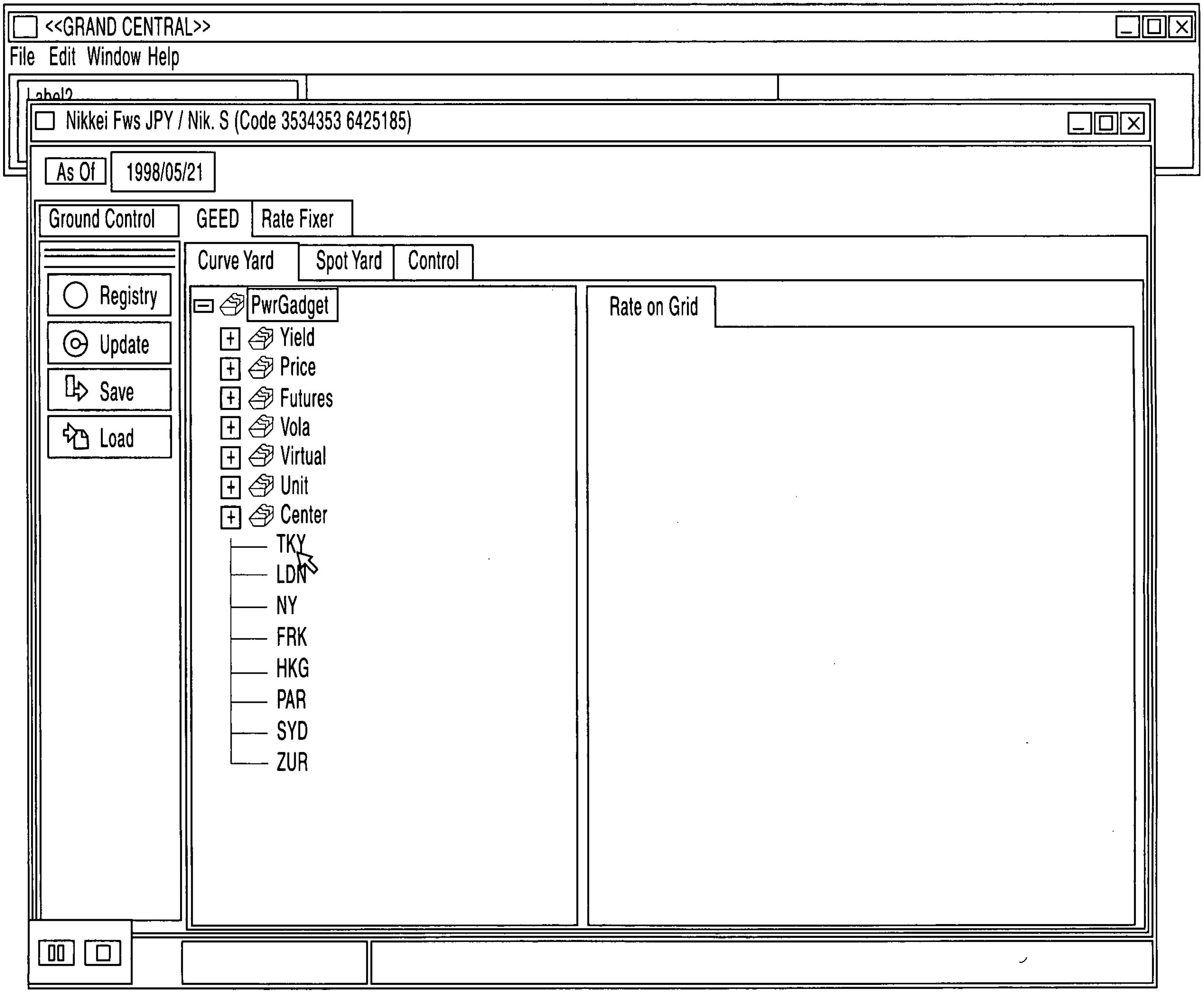

<<GRAND CENTRAL>>
File Edit Window Help
Label2
Nikkei Fws JPY / Nik. S (Code 3534353 6425185)
As Of
1998/05/21
Ground Control
GEED
Rate Fixer
Registry
Update
Save
Load
Curve Yard
Spot Yard
Control
PwrGadget
Yield
Price
Futures
Vola
Virtual
Unit
Center
TKY
LDN
NY
FRK
HKG
PAR
SYD
ZUR
Rate on Grid

FIG.42

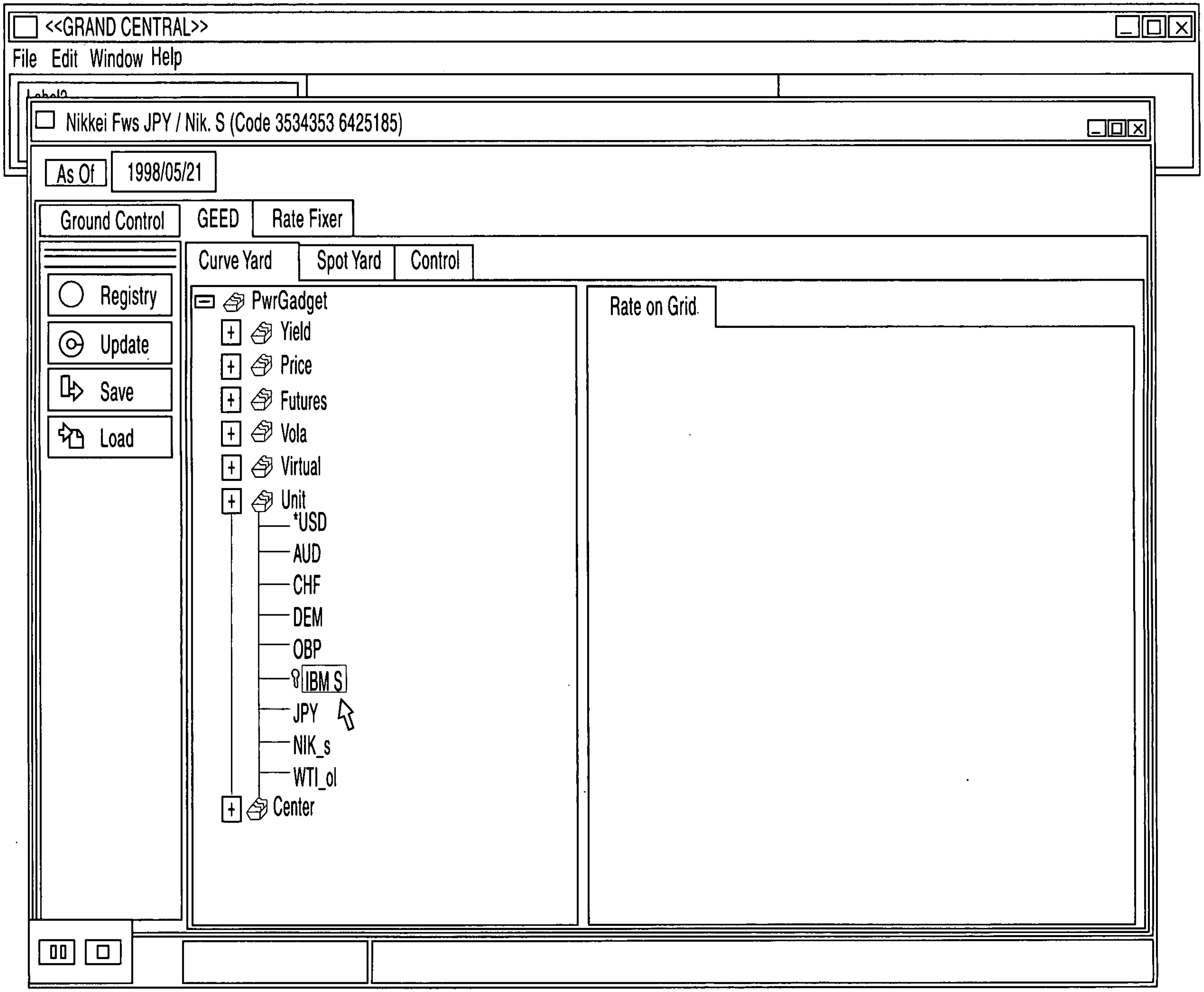
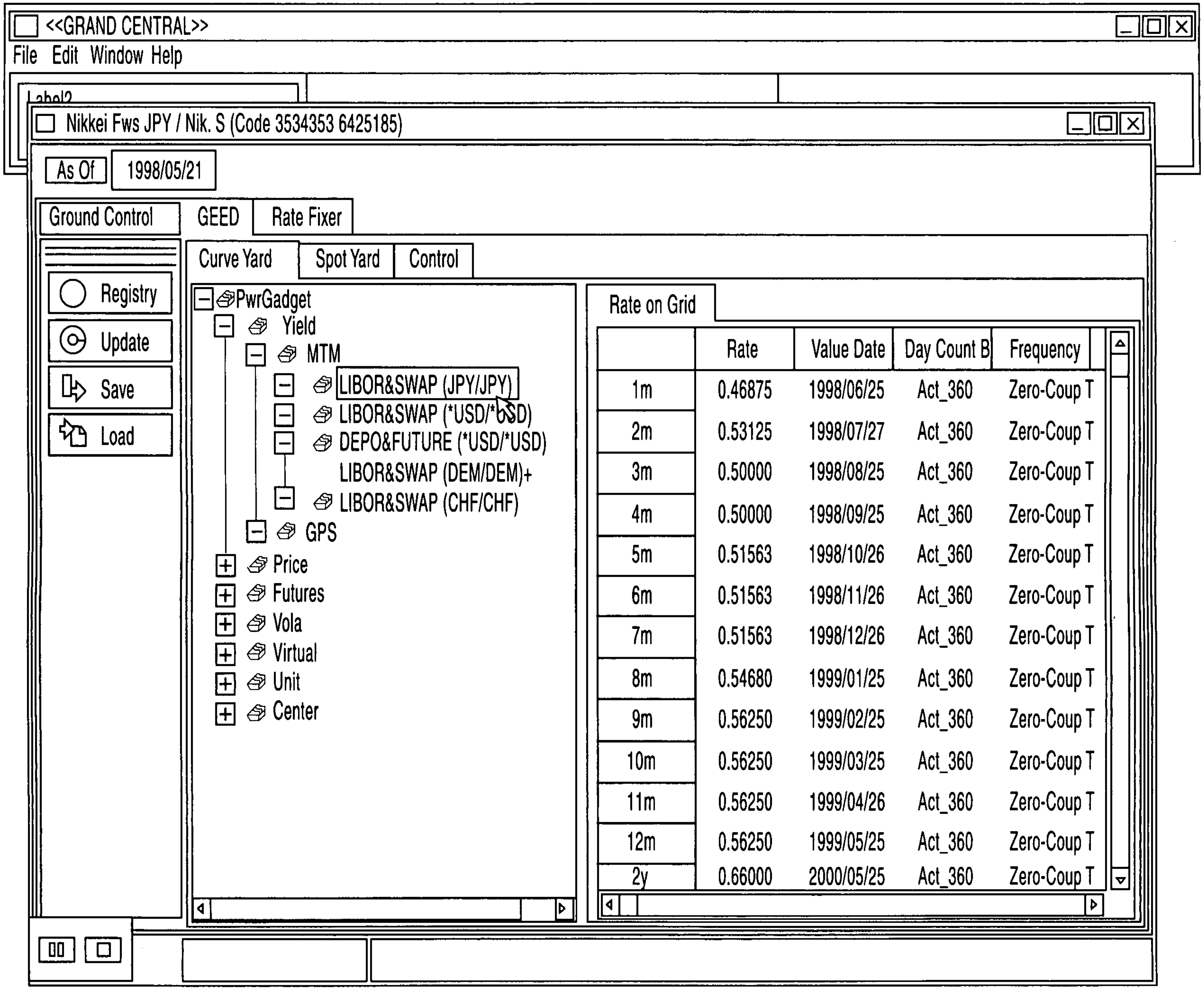
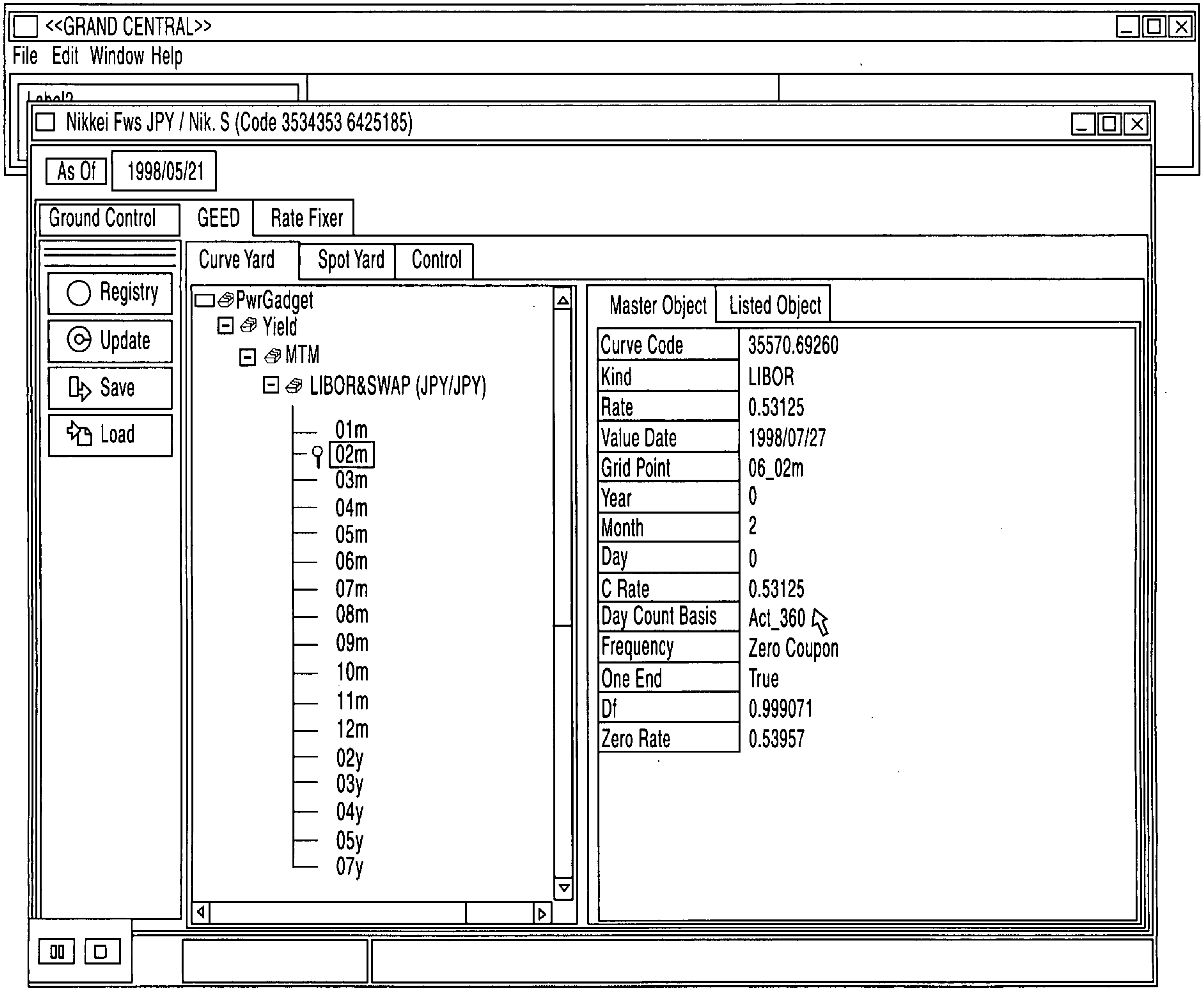

<<GRAND CENTRAL>>
File Edit Window Help
Nikkei Fws JPY / Nik. S (Code 3534353 6425185)
As Of
1998/05/21
Ground Control
GEED
Rate Fixer
Curve Yard
Spot Yard
Control
Registry
Update
Save
Load
PwrGadget
Yield
Price
Futures
Vola
Virtual
Unit
*USD
AUD
CHF
DEM
OBP
IBM S
JPY
NIK_s
WTI_ol
Center
Rate on Grid.

FIG.43


<<GRAND CENTRAL>>
File Edit Window Help
Label2
Nikkei Fws JPY / Nik. S (Code 3534353 6425185)
As Of
1998/05/21
Ground Control
GEED
Rate Fixer
Registry
Update
Save
Load
Curve Yard
Spot Yard
Control
PwrGadget
Yield
MTM
LIBOR&SWAP (JPY/JPY)
LIBOR&SWAP (*USD/*USD)
DEPO&FUTURE (*USD/*USD)
LIBOR&SWAP (DEM/DEM)+
LIBOR&SWAP (CHF/CHF)
GPS
Price
Futures
Vola
Virtual
Unit
Center
Rate on Grid

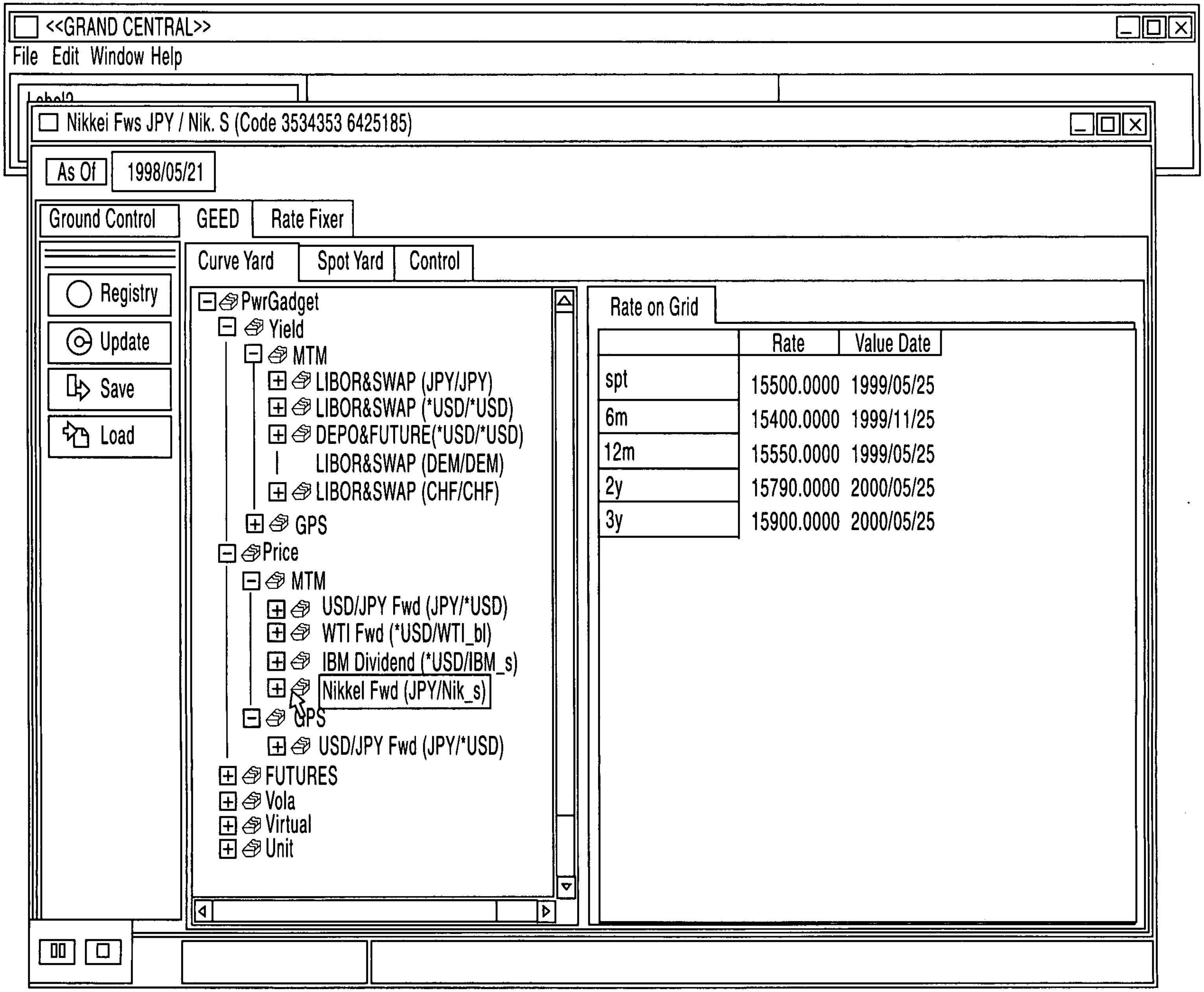
	Rate	Value Date	Day Count B	Frequency
1m	0.46875	1998/06/25	Act_360	Zero-Coup T
2m	0.53125	1998/07/27	Act_360	Zero-Coup T
3m	0.50000	1998/08/25	Act_360	Zero-Coup T
4m	0.50000	1998/09/25	Act_360	Zero-Coup T
5m	0.51563	1998/10/26	Act_360	Zero-Coup T
6m	0.51563	1998/11/26	Act_360	Zero-Coup T
7m	0.51563	1998/12/26	Act_360	Zero-Coup T
8m	0.54680	1999/01/25	Act_360	Zero-Coup T
9m	0.56250	1999/02/25	Act_360	Zero-Coup T
10m	0.56250	1999/03/25	Act_360	Zero-Coup T
11m	0.56250	1999/04/26	Act_360	Zero-Coup T
12m	0.56250	1999/05/25	Act_360	Zero-Coup T
2y	0.66000	2000/05/25	Act_360	Zero-Coup T

FIG.44


<<GRAND CENTRAL>>
File Edit Window Help
Label2
Nikkei Fws JPY / Nik. S (Code 3534353 6425185)
As Of
1998/05/21
Ground Control
GEED
Rate Fixer
Registry
Update
Save
Load
Curve Yard
Spot Yard
Control
PwrGadget
Yield
MTM
LIBOR&SWAP (JPY/JPY)
01m
02m
03m
04m
05m
06m
07m
08m
09m
10m
11m
12m
02y
03y
04y
05y
07y
Master Object
Listed Object

Curve Code	35570.69260
Kind	LIBOR
Rate	0.53125
Value Date	1998/07/27
Grid Point	06_02m
Year	0
Month	2
Day	0
C Rate	0.53125
Day Count Basis	Act_360
Frequency	Zero Coupon
One End	True
Df	0.999071
Zero Rate	0.53957

FIG.45

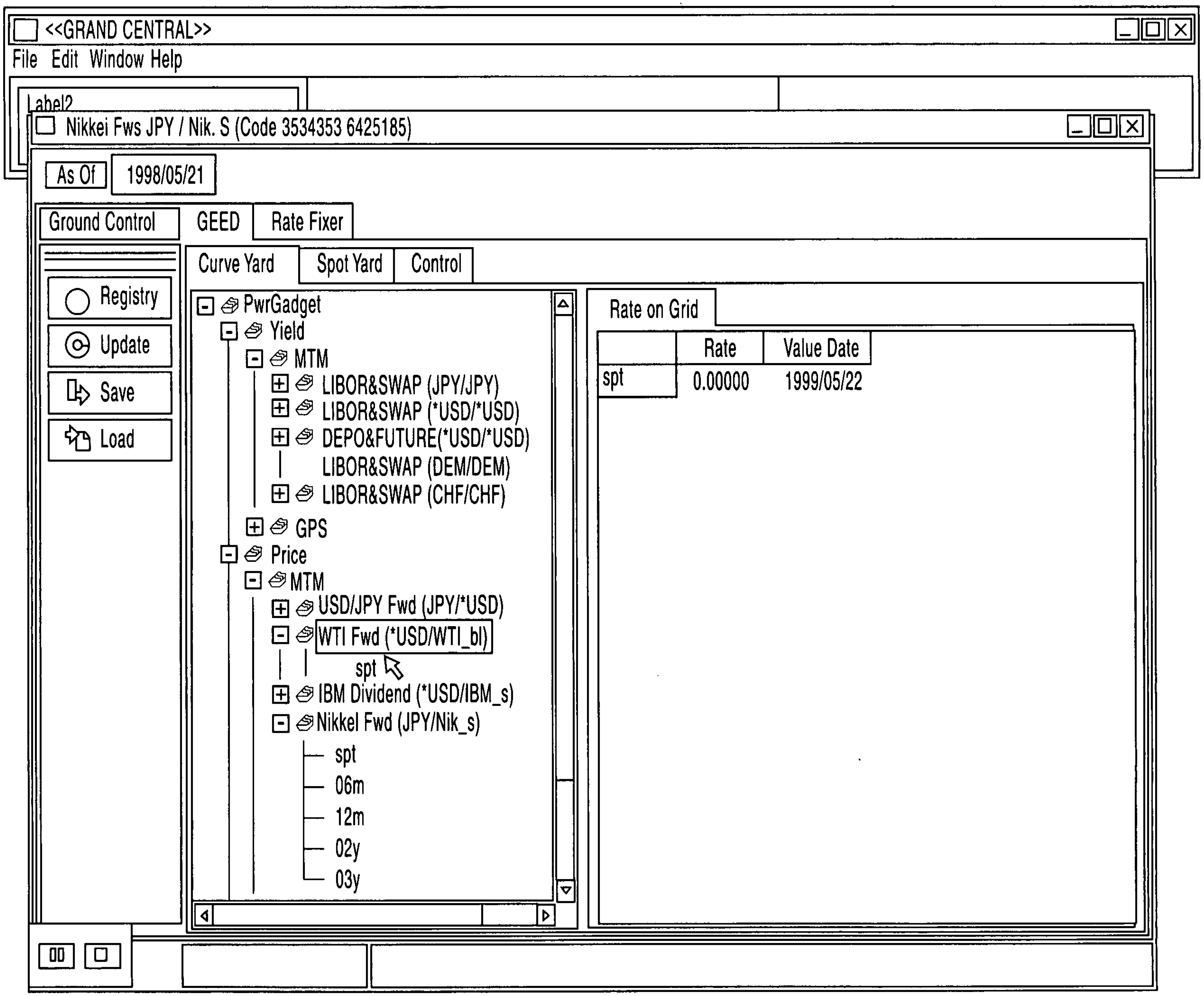

<<GRAND CENTRAL>>
File Edit Window Help
Label2
Nikkei Fws JPY / Nik. S (Code 3534353 6425185)
As Of
Ground Control
GEED
Rate Fixer
Curve Yard
Spot Yard
Control
○ Registry
Update
Save
Load
Rate on Grid

As Of 1998/05/21

- PwrGadget
  - Yield
    - MTM
      - LIBOR&SWAP (JPY/JPY)
      - LIBOR&SWAP (*USD/*USD)
      - DEPO&FUTURE(*USD/*USD)
      - LIBOR&SWAP (DEM/DEM)
      - LIBOR&SWAP (CHF/CHF)
    - GPS
  - Price
    - MTM
      - USD/JPY Fwd (JPY/*USD)
      - WTI Fwd (*USD/WTI_bl)
      - IBM Dividend (*USD/IBM_s)
      - Nikkel Fwd (JPY/Nik_s)
    - GPS
      - USD/JPY Fwd (JPY/*USD)
  - FUTURES
  - Vola
  - Virtual
  - Unit

	Rate	Value Date
spt	15500.0000	1999/05/25
6m	15400.0000	1999/11/25
12m	15550.0000	1999/05/25
2y	15790.0000	2000/05/25
3y	15900.0000	2000/05/25

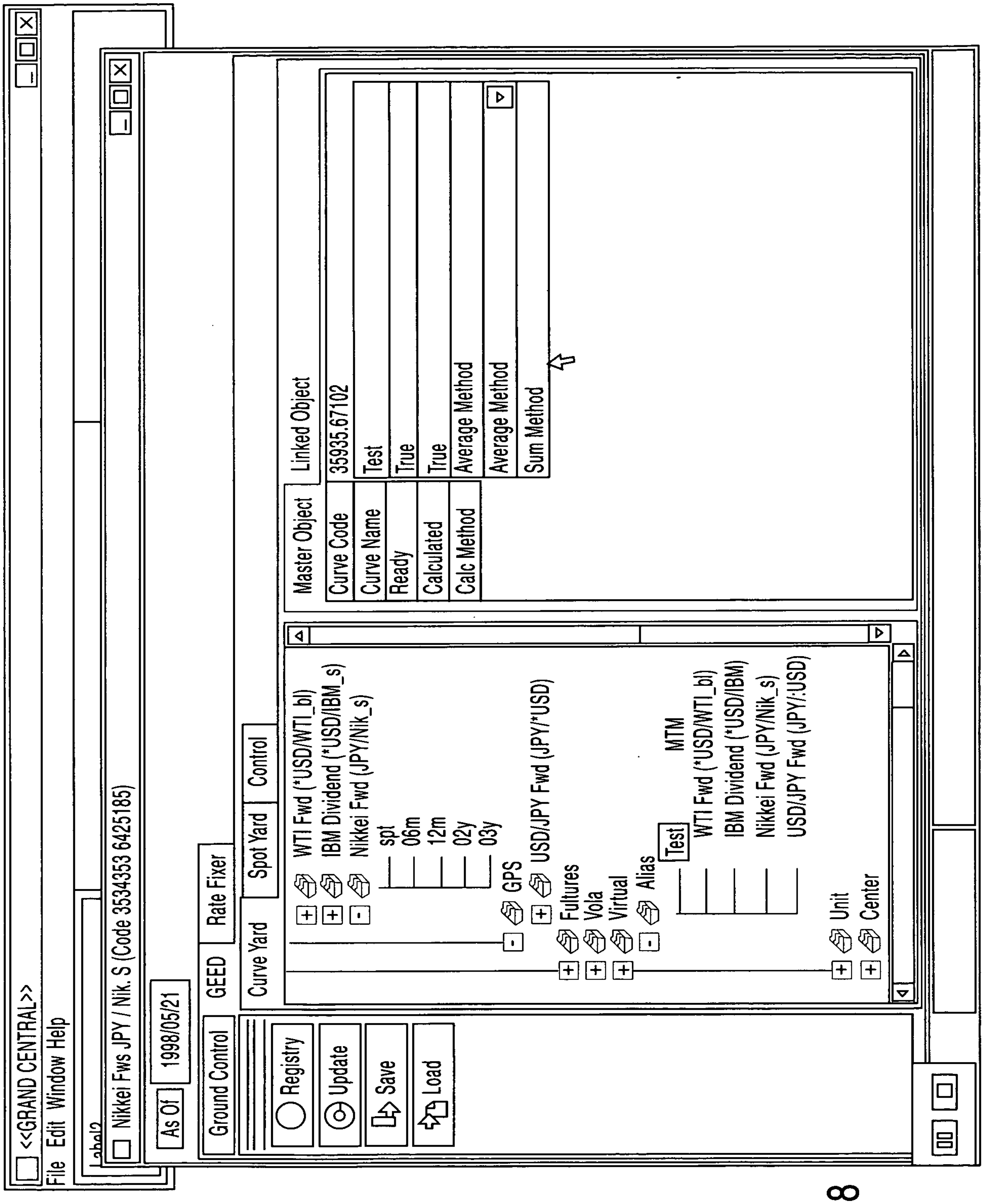
FIG.46


<<GRAND CENTRAL>>
File Edit Window Help
Label2
Nikkei Fws JPY / Nik. S (Code 3534353 6425185)
As Of
Ground Control
GEED
Rate Fixer
Curve Yard
Spot Yard
Control
Registry
Update
Save
Load
PwrGadget
Yield
MTM
LIBOR&SWAP (JPY/JPY)
LIBOR&SWAP (*USD/*USD)
DEPO&FUTURE(*USD/*USD)
LIBOR&SWAP (DEM/DEM)
LIBOR&SWAP (CHF/CHF)
GPS
Price
MTM
USD/JPY Fwd (JPY/*USD)
WTI Fwd (*USD/WTI_bl)
spt
IBM Dividend (*USD/IBM_s)
Nikkel Fwd (JPY/Nik_s)
spt
06m
12m
02y
03y
Rate on Grid

As Of 1998/05/21

	Rate	Value Date
spt	0.00000	1999/05/22

FIG.47


<<GRAND CENTRAL>>
File Edit Window Help
Label2
Ground Control
GEED
Rate Fixer
Registry
Update
Save
Load
Curve Yard
Spot Yard
Control
Master Object
Linked Object

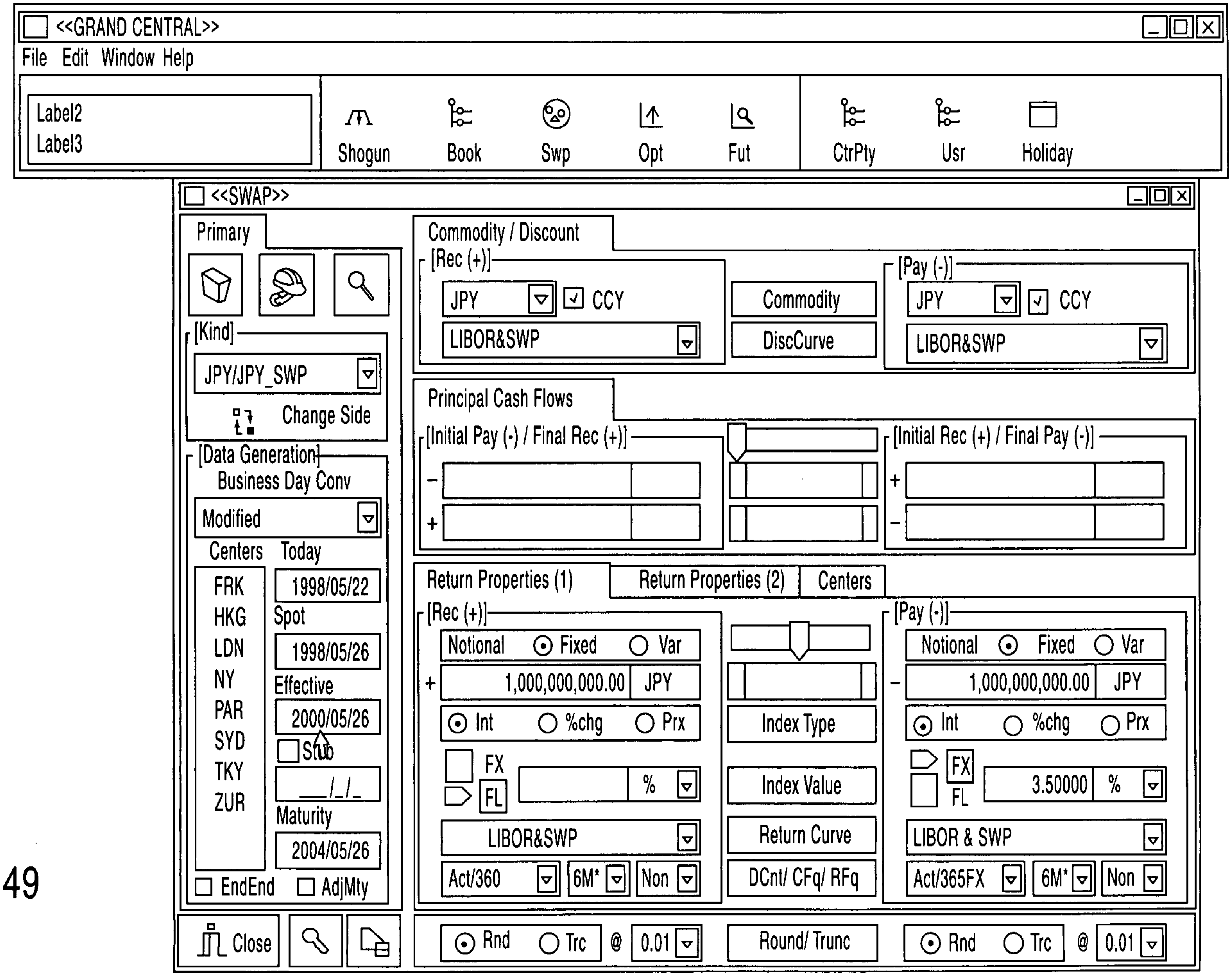
Nikkei Fws JPY / Nik. S (Code 3534353 6425185)

As Of 1998/05/21

- GPS
  - WTI Fwd (*USD/WTI_bl)
  - IBM Dividend (*USD/IBM_s)
  - Nikkei Fwd (JPY/Nik_s)
    - spt
    - 06m
    - 12m
    - 02y
    - 03y
  - USD/JPY Fwd (JPY/*USD)
- Fultures
- Vola
- Virtual
- Alias
  - Test
    - MTM
    - WTI Fwd (*USD/WTI_bl)
    - IBM Dividend (*USD/IBM)
    - Nikkei Fwd (JPY/Nik_s)
    - USD/JPY Fwd (JPY/:USD)
- Unit
- Center

Curve Code	35935.67102
Curve Name	Test
Ready	True
Calculated	True
Calc Method	Average Method Average Method Sum Method

FIG.48


<<GRAND CENTRAL>>
File Edit Window Help
Label2
Label3
Shogun
Book
Swp
Opt
Fut
CtrPty
Usr
Holiday
<<SWAP>>
Primary
Commodity / Discount
Commodity
DiscCurve
Principal Cash Flows
Return Properties (1)
Return Properties (2)
Centers
Index Type
Index Value
Return Curve
DCnt/ CFq/ RFq
Round/ Trunc
Close

[Kind]
JPY/JPY_SWP
Change Side

[Data Generation]
Business Day Conv
Modified
Centers: FRK, HKG, LDN, NY, PAR, SYD, TKY, ZUR
Today 1998/05/22
Spot 1998/05/26
Effective 2000/05/26
☐ Stub
__/_/_
Maturity 2004/05/26
☐ EndEnd ☐ AdjMty

[Rec (+)]
JPY ☑ CCY
LIBOR&SWP

[Pay (-)]
JPY ☑ CCY
LIBOR&SWP

[Initial Pay (-) / Final Rec (+)]
-
+

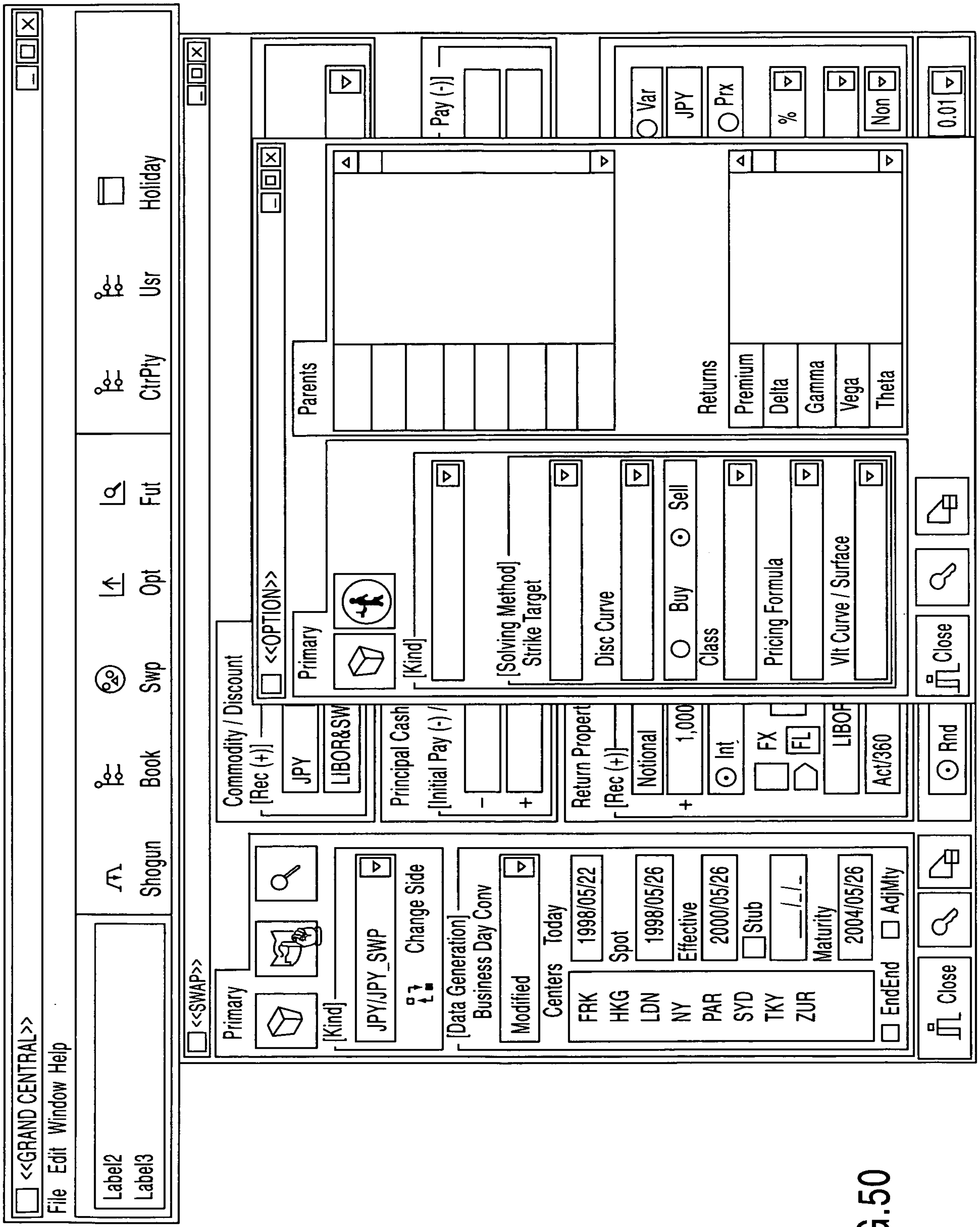
[Initial Rec (+) / Final Pay (-)]
+
-

[Rec (+)]
Notional ● Fixed ○ Var
+ 1,000,000,000.00 JPY
● Int ○ %chg ○ Prx
☐ FX ☐ FL %
LIBOR&SWP
Act/360 6M* Non

[Pay (-)]
Notional ● Fixed ○ Var
- 1,000,000,000.00 JPY
● Int ○ %chg ○ Prx
FX ☐ FL 3.50000 %
LIBOR & SWP
Act/365FX 6M* Non

● Rnd ○ Trc @ 0.01
● Rnd ○ Trc @ 0.01

FIG.49


☐ <<GRAND CENTRAL>>
File Edit Window Help
Label2
Label3
Shogun
Book
Swp
Opt
Fut
CtrPty
Usr
Holiday
☐ <<SWAP>>
Primary
[Kind]
Change Side
[Data Generation]
Business Day Conv
Centers
FRK
HKG
LDN
NY
PAR
SYD
TKY
ZUR
☐ EndEnd
☐ AdjMty
Close
Commodity / Discount
[Rec (+)]
Pay (-)
Principal Cash
[Initial Pay (-) /
-
+
Return Propert
[Rec (+)]
+
⊙ Int
FX
FL
○ Var
○ Prx
⊙ Rnd
☐ <<OPTION>>
Primary
Parents
Returns
Premium
Delta
Gamma
Vega
Theta
[Kind]
[Solving Method]
Strike Target
Disc Curve
○ Buy
⊙ Sell
Class
Pricing Formula
Vlt Curve / Surface
Close

JPY/JPY_SWP
Modified
Today 1998/05/22
Spot 1998/05/26
Effective 2000/05/26
☐ Stub ___/_/_
Maturity 2004/05/26
JPY
LIBOR&SW
Notional 1,000
LIBOR
Act/360
JPY
%
Non
0.01

FIG.50

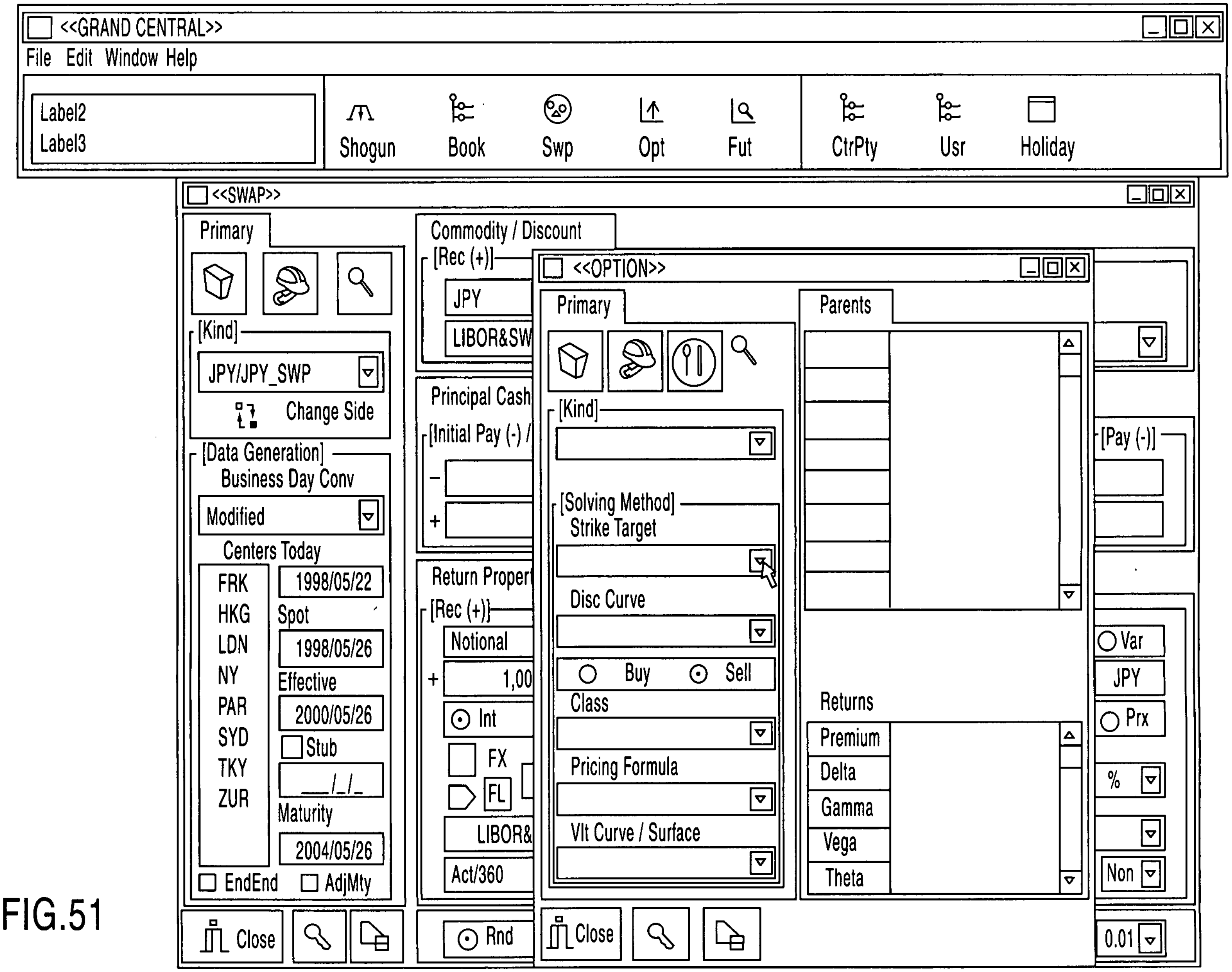
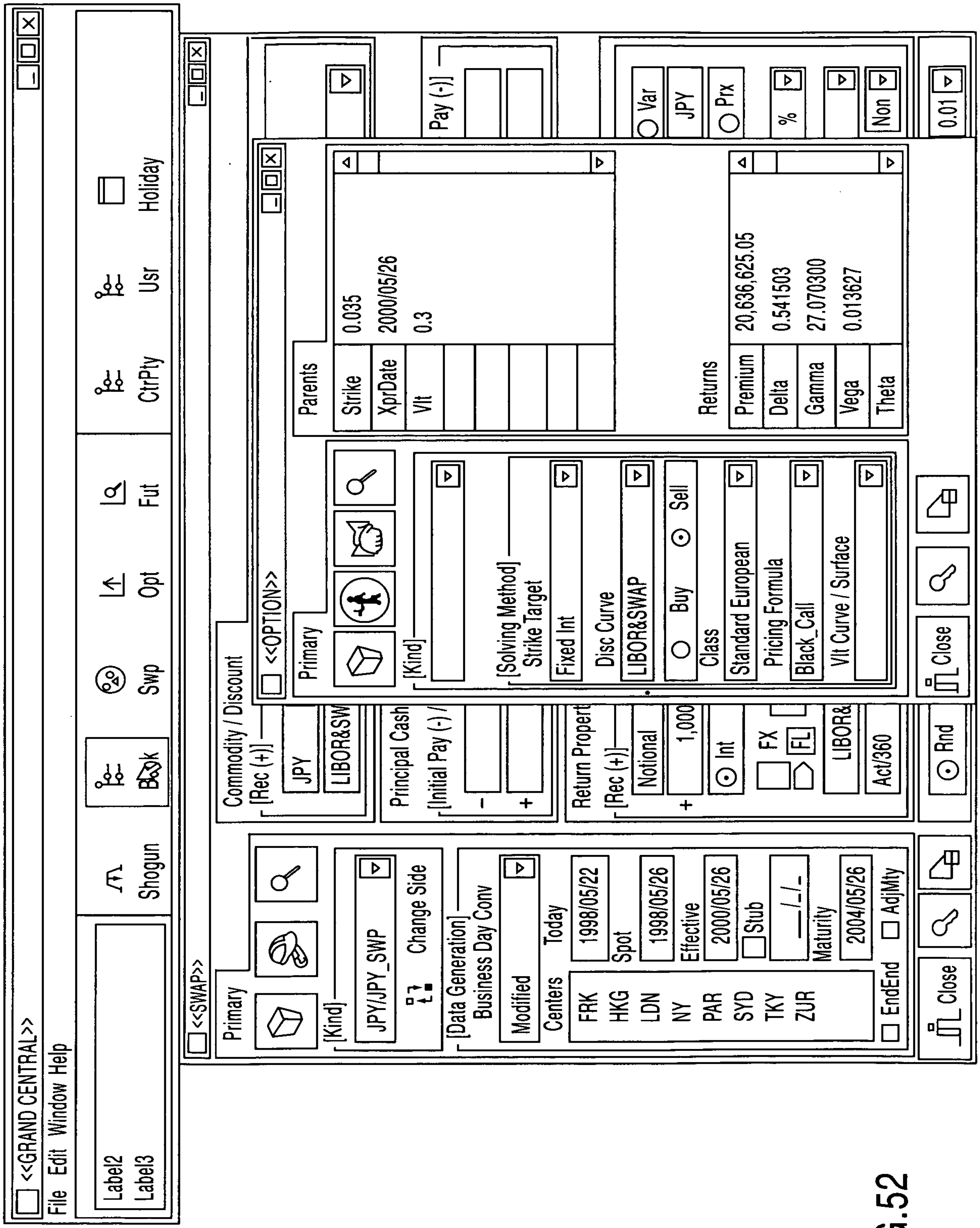

<<GRAND CENTRAL>>
File Edit Window Help
Label2
Label3
Shogun
Book
Swp
Opt
Fut
CtrPty
Usr
Holiday
<<SWAP>>
Primary
[Kind]
JPY/JPY_SWP
Change Side
[Data Generation]
Business Day Conv
Modified
Centers Today
FRK
HKG
LDN
NY
PAR
SYD
TKY
ZUR
1998/05/22
Spot
1998/05/26
Effective
2000/05/26
☐ Stub
__/_/_
Maturity
2004/05/26
☐ EndEnd
☐ AdjMty
Close
Commodity / Discount
[Rec (+)]
JPY
LIBOR&SW
Principal Cash
[Initial Pay (-) /
-
+
Return Proper
[Rec (+)]
Notional
+ 1,00
● Int
☐ FX
FL
LIBOR&
Act/360
● Rnd
[Pay (-)]
○ Var
JPY
○ Prx
%
Non
0.01
<<OPTION>>
Primary
[Kind]
[Solving Method]
Strike Target
Disc Curve
○ Buy
● Sell
Class
Pricing Formula
Vlt Curve / Surface
Close
Parents
Returns
Premium
Delta
Gamma
Vega
Theta

FIG.51



<<GRAND CENTRAL>>
File Edit Window Help
Label2
Label3
Shogun
Book
Swp
Opt
Fut
CtrPty
Usr
Holiday
<<SWAP>>
Primary
[Kind]
Change Side
Commodity / Discount
Principal Cash
Return Propert
Close
Rnd
<<OPTION>>
Primary
[Kind]
Parents
Returns
Close

[Kind] JPY/JPY_SWP

[Data Generation]
Business Day Conv: Modified

Centers: FRK, HKG, LDN, NY, PAR, SYD, TKY, ZUR

Today: 1998/05/22
Spot: 1998/05/26
Effective: 2000/05/26
☐ Stub: __/__/__
Maturity: 2004/05/26
☐ EndEnd ☐ AdjMty

Commodity / Discount
[Rec (+)]: JPY, LIBOR&SW

Pay (-)

[Initial Pay (-) /
-
+

[Rec (+)]
Notional: + 1,000
● Int ☐ FX ☐ FL
LIBOR&
Act/360

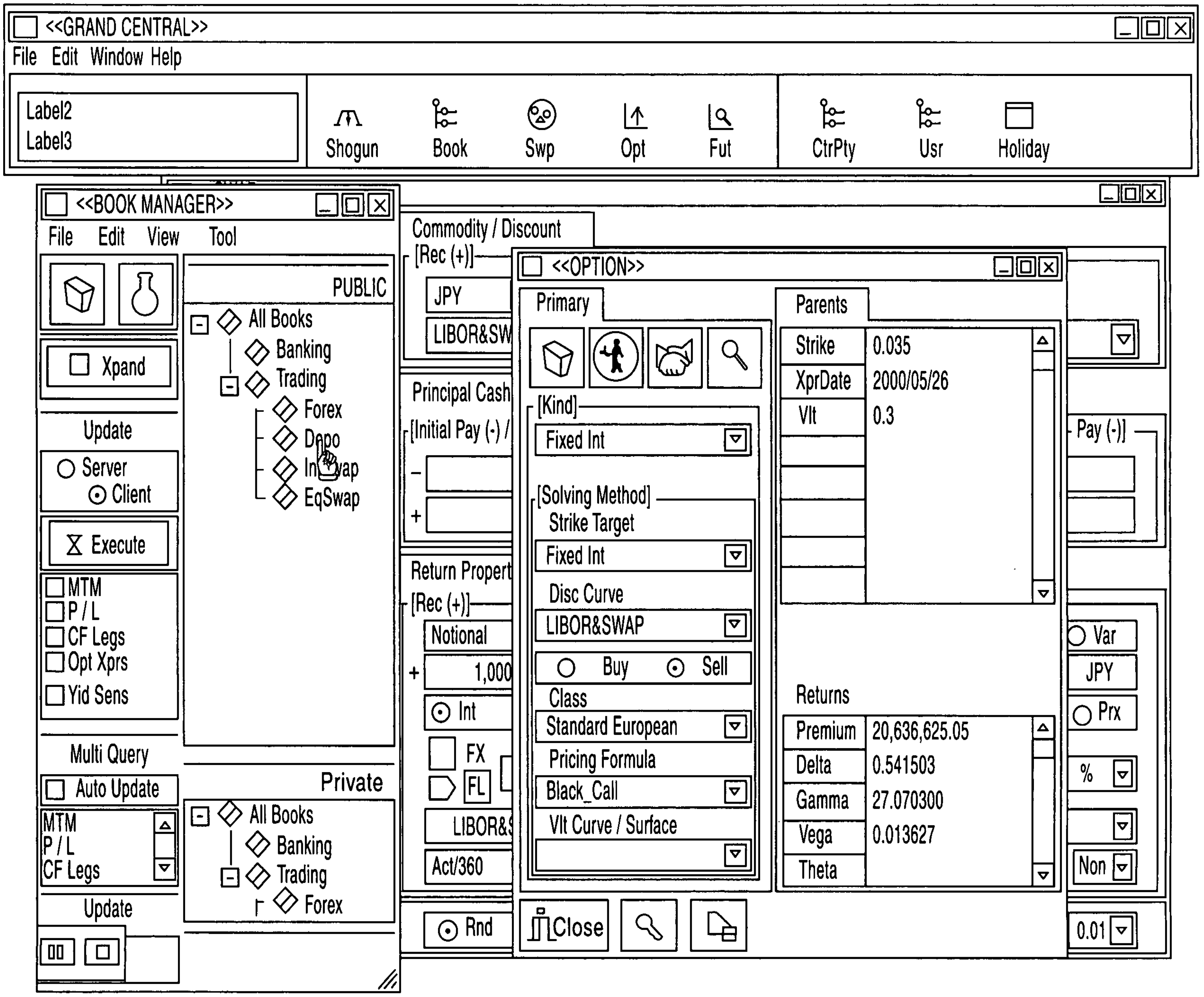
○ Var
JPY
○ Prx
%
Non
0.01

[Solving Method]
Strike Target: Fixed Int
Disc Curve: LIBOR&SWAP
○ Buy ● Sell
Class: Standard European
Pricing Formula: Black_Call
Vlt Curve / Surface

Parents	
Strike	0.035
XprDate	2000/05/26
Vlt	0.3

Returns	
Premium	20,636,625.05
Delta	0.541503
Gamma	27.070300
Vega	0.013627
Theta	

FIG.52



Parents	
Strike	0.035
XprDate	2000/05/26
Vlt	0.3

Returns	
Premium	20,636,625.05
Delta	0.541503
Gamma	27.070300
Vega	0.013627
Theta	

[Kind] Fixed Int

[Solving Method] Strike Target: Fixed Int

Disc Curve: LIBOR&SWAP

○ Buy ⊙ Sell

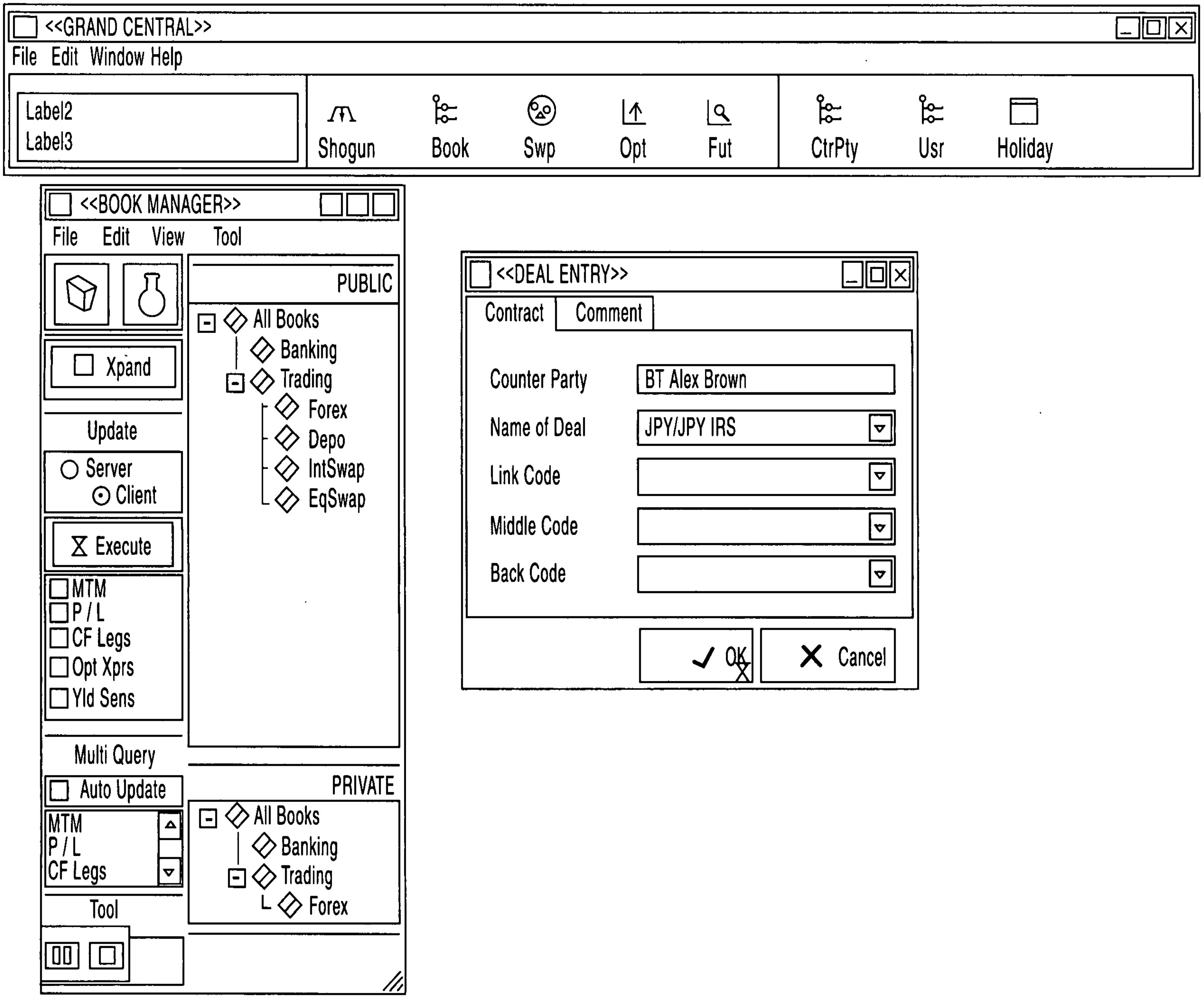
Class: Standard European

Pricing Formula: Black_Call

Vlt Curve / Surface

☐ <<GRAND CENTRAL>>
File Edit Window Help
Label2
Label3
Shogun
Book
Swp
Opt
Fut
CtrPty
Usr
Holiday
☐ <<BOOK MANAGER>>
File Edit View Tool
☐ Xpand
Update
○ Server
⊙ Client
Execute
☐ MTM
☐ P / L
☐ CF Legs
☐ Opt Xprs
☐ Yld Sens
Multi Query
☐ Auto Update
MTM
P / L
CF Legs
Update
PUBLIC
All Books
Banking
Trading
Forex
Depo
IrSwap
EqSwap
Private
All Books
Banking
Trading
Forex
Commodity / Discount
[Rec (+)]
JPY
LIBOR&SW
Principal Cash
[Initial Pay (-) /
-
+
Return Propert
[Rec (+)]
Notional
+ 1,000
⊙ Int
FX
FL
LIBOR&
Act/360
⊙ Rnd
Pay (-)]
○ Var
JPY
○ Prx
%
Non
0.01
☐ <<OPTION>>
Primary
Close

FIG.53


<<GRAND CENTRAL>>
File Edit Window Help
Label2
Label3
Shogun
Book
Swp
Opt
Fut
CtrPty
Usr
Holiday
<<BOOK MANAGER>>
File
Edit
View
Tool
☐ Xpand
Update
○ Server
● Client
Execute
☐ MTM
☐ P / L
☐ CF Legs
☐ Opt Xprs
☐ Yld Sens
Multi Query
☐ Auto Update
MTM
P / L
CF Legs
Tool
PUBLIC
All Books
Banking
Trading
Forex
Depo
IntSwap
EqSwap
PRIVATE
All Books
Banking
Trading
Forex
<<DEAL ENTRY>>
Contract
Comment
OK
Cancel

Counter Party BT Alex Brown

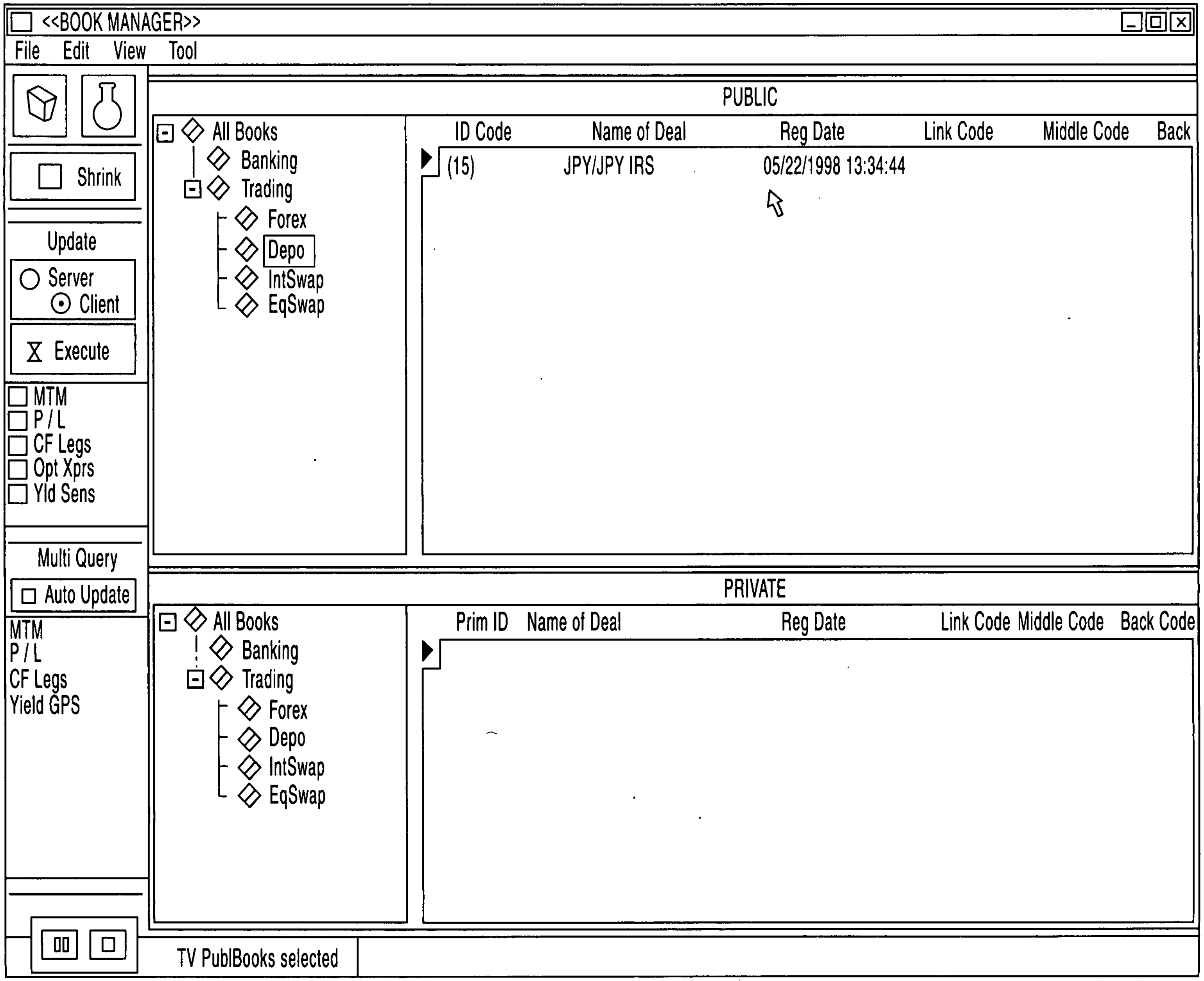
Name of Deal JPY/JPY IRS

Link Code

Middle Code

Back Code

FIG.54


<<BOOK MANAGER>>
File Edit View Tool
☐ Shrink
Update
○ Server
● Client
Execute
☐ MTM
☐ P / L
☐ CF Legs
☐ Opt Xprs
☐ Yld Sens
Multi Query
☐ Auto Update
MTM
P / L
CF Legs
Yield GPS
TV PublBooks selected
PUBLIC
All Books
Banking
Trading
Forex
Depo
IntSwap
EqSwap
PRIVATE
All Books
Banking
Trading
Forex
Depo
IntSwap
EqSwap

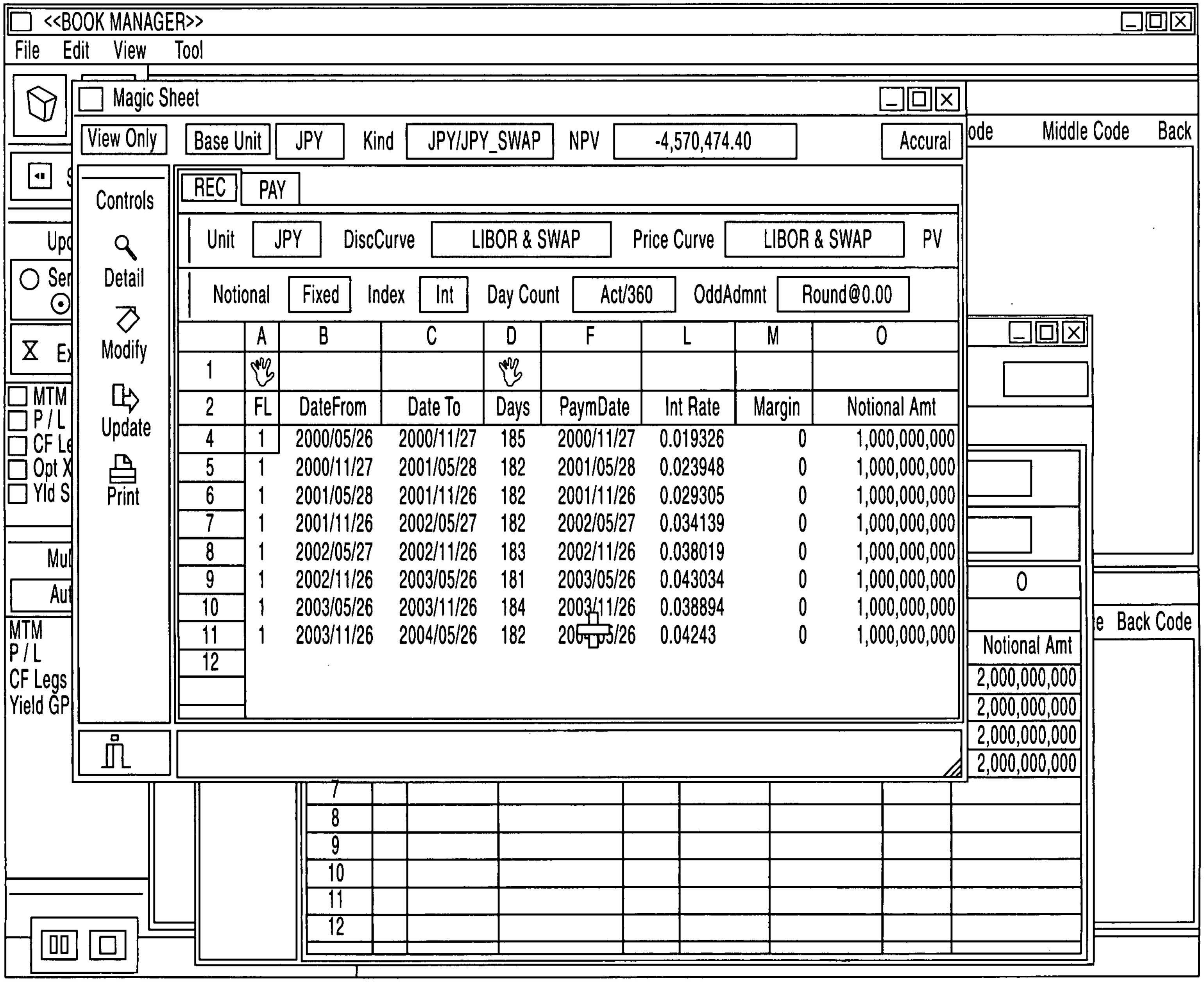
PUBLIC

ID Code	Name of Deal	Reg Date	Link Code	Middle Code	Back
(15)	JPY/JPY IRS	05/22/1998 13:34:44			

PRIVATE

Prim ID	Name of Deal	Reg Date	Link Code	Middle Code	Back Code

FIG.55


<<BOOK MANAGER>>
File
Edit
View
Tool
Magic Sheet
View Only
Accural
REC
PAY
Controls
Detail
Modify
Update
Print
MTM
P / L
CF Le
Opt X
Yld S
MTM
P / L
CF Legs
Yield GP
Middle Code
Back
Back Code
Notional Amt
2,000,000,000
2,000,000,000
2,000,000,000
2,000,000,000

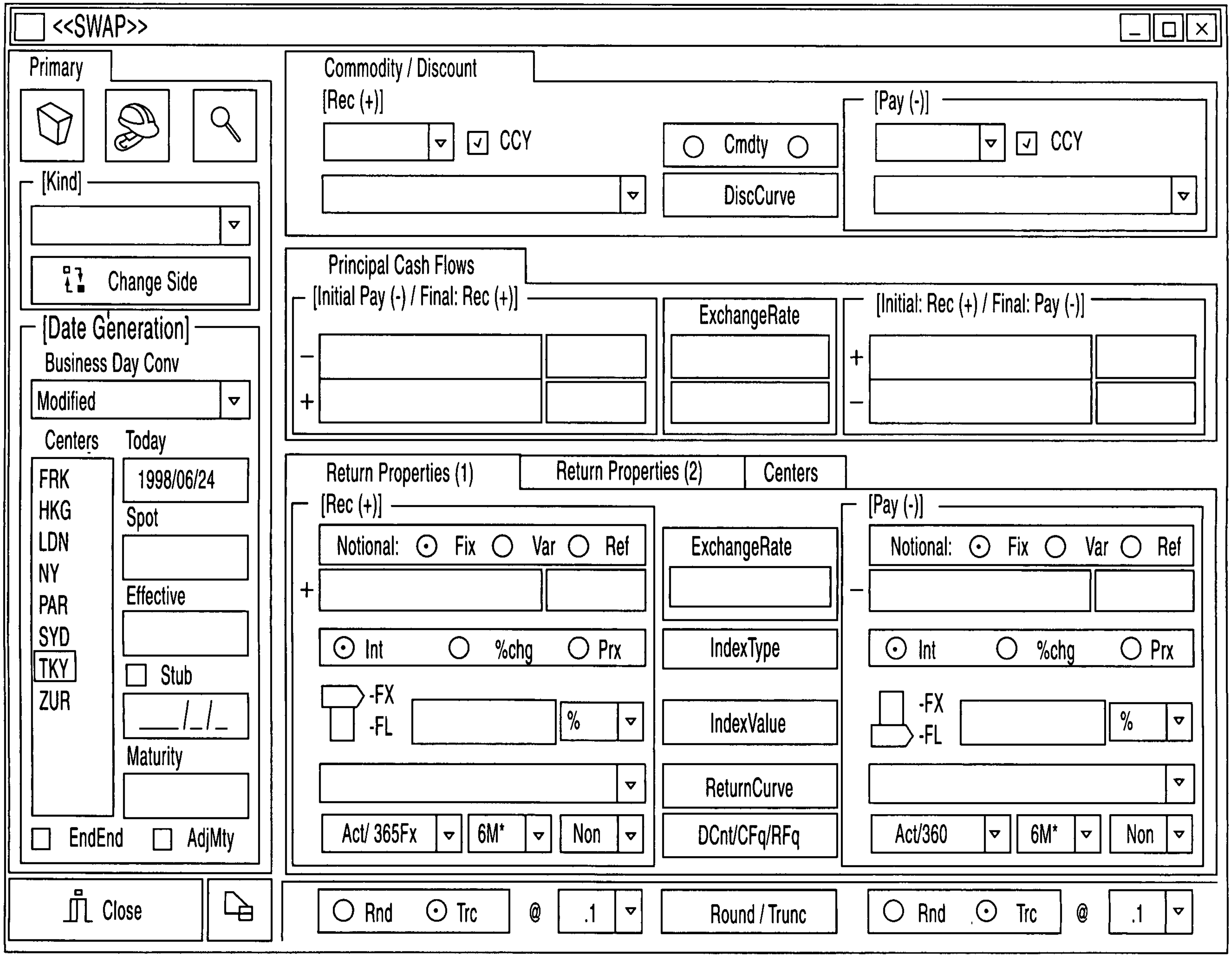
Base Unit: JPY
Kind: JPY/JPY_SWAP
NPV: -4,570,474.40

Unit: JPY
DiscCurve: LIBOR & SWAP
Price Curve: LIBOR & SWAP
PV

Notional: Fixed
Index: Int
Day Count: Act/360
OddAdmnt: Round@0.00

	A	B	C	D	F	L	M	O
1								
2	FL	DateFrom	Date To	Days	PaymDate	Int Rate	Margin	Notional Amt
4	1	2000/05/26	2000/11/27	185	2000/11/27	0.019326	0	1,000,000,000
5	1	2000/11/27	2001/05/28	182	2001/05/28	0.023948	0	1,000,000,000
6	1	2001/05/28	2001/11/26	182	2001/11/26	0.029305	0	1,000,000,000
7	1	2001/11/26	2002/05/27	182	2002/05/27	0.034139	0	1,000,000,000
8	1	2002/05/27	2002/11/26	183	2002/11/26	0.038019	0	1,000,000,000
9	1	2002/11/26	2003/05/26	181	2003/05/26	0.043034	0	1,000,000,000
10	1	2003/05/26	2003/11/26	184	2003/11/26	0.038894	0	1,000,000,000
11	1	2003/11/26	2004/05/26	182	20[illegible]5/26	0.04243	0	1,000,000,000
12								

FIG.56



Business Day Conv: Modified

Today: 1998/06/24

Notional: ● Fix ○ Var ○ Ref

● Int ○ %chg ○ Prx

Act/ 365Fx | 6M* | Non

Act/360 | 6M* | Non

○ Rnd ● Trc @ .1

<<SWAP>>
Primary
[Kind]
Change Side
[Date Generation]
Centers
FRK
HKG
LDN
NY
PAR
SYD
TKY
ZUR
Spot
Effective
☐ Stub
__/_/_
Maturity
☐ EndEnd
☐ AdjMty
Close
Commodity / Discount
[Rec (+)]
☑ CCY
○ Cmdty ○
DiscCurve
[Pay (-)]
☑ CCY
Principal Cash Flows
[Initial Pay (-) / Final: Rec (+)]
-
+
ExchangeRate
[Initial: Rec (+) / Final: Pay (-)]
+
-
Return Properties (1)
Return Properties (2)
Centers
[Rec (+)]
+
-FX
-FL
%
ExchangeRate
IndexType
IndexValue
ReturnCurve
DCnt/CFq/RFq
[Pay (-)]
-
-FX
-FL
%
Round / Trunc

FIG.57